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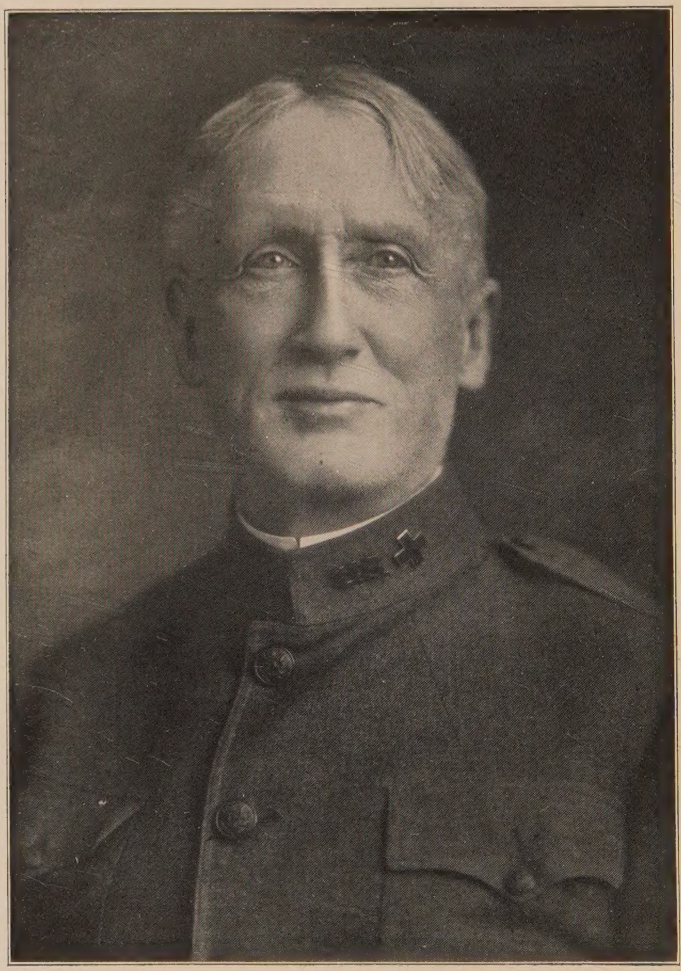

ALFRED WORCESTER

A Tribute to a Physician of Massachusetts

CONTAINING EIGHTEEN ARTICLES REPRINTED FROM
THE WRITINGS OF DR. ALFRED WORCESTER
ONE ARTICLE FROM THE WRITINGS OF
DR. EDWARD R. CUTLER AND
FOUR SKETCHES BY MR.
RUSSELL T. HYDE

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TO

ELIZABETH JOY WORCESTER

FOREWORD

THE most inspiring elements of human education are to be found in recitals of the activities of individuals. Biographies that set forth personal traits and experiences may be most interesting to circles of intimate friends, but the greatest value is found in those volumes which portray the accomplishments of the person whose activities are reviewed.

Those who have come to realize that a man has contributed much to society are often moved to place in permanent form a record of the important activities of the one who has been not only a charming friend and companion but possessed of a dominant mind, and untiringly devoted to the promotion of the greatest possible good to humanity.

Some readers of this volume may never know the qualities of heart and mind which made Dr. Alfred Worcester one of the most beloved physicians of this community, but all who will give time to a study of his writings will realize that he had a grasp of medical problems and a power of expression that carried conviction. His periods of dangerous ill health created added interest in the sufferings of his patients, and imbued with the spirit of the crusader he fought valiantly to develop the methods by which the sick could have the most sympathetic and skillful medical and nursing care.

Although not devoting himself for many years to the development of surgical technic he had a clear conception of surgical problems and at one time combatted the dangerous conservatism of surgeons. Always interested in the problems of maternity he

served the State in arousing interest in the morbidity and mortality of the mother and her babe at a time when the profession was unduly sensitive and unready to assume its full responsibility.

Aside from medical affairs Dr. Worcester has always been a loyal citizen, and at the time of the outbreak of the world war, although beyond the age of acceptable volunteers, he left no stone unturned in his efforts to get into some branch of active service, and eventually secured an appointment in the Red Cross which took him to Switzerland.

The purpose of this volume is not only to pay a just tribute to a great physician and give pleasure to Dr. Worcester's friends, but to put in available form material which will be of assistance to those historians who may record the important activities which have made Massachusetts prominent in the medical affairs of this country.

WALTER P. BOWERS

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ALFRED WORCESTER

A PROFESSOR of surgery in the Harvard Medical School once told his classes of the belief held in a few less-enlightened parts of the world that suppuration was caused by germs, and in order that there should be no doubt as to the truth added, "Gentlemen, you may believe it or not. I do not." At that time puerperal sepsis was rampant in the Boston Lying-in Hospital, and appendicitis was not recognized as a removable cause of general peritonitis. Prayer was perhaps the most efficacious treatment for diphtheria and tuberculosis. There were no trained nurses. The time was not that of the Pilgrims, or even that of the Civil War. It was a scant forty years ago.

Yet forty years measured in terms of an individual life is no small length of time. It brings a thrill to think that there are men still engaged in active practice who can tell us of those times. The fact that some of these men can still successfully compete with the modern surgeon, the obstetrician and the internist, is a rare thought. But it is almost beyond belief to find that there is one man who has not only comprehended and practised every phase of the newer medicine, but who has also blazed the trail in one special field after another.

There is no doubt that the name of Alfred Worcester will be long remembered, but it may be first forgotten for what he was most of all, a family doctor. How many now remember his buggy, his horses, or even his one cylinder Cadillac? That was a great car. The kerosene from the lamps dumped into the

empty gas tank once enabled him to complete a hurried night visit into the country. There are many at whose bedside he has sat who will hold him in loving remembrance as long as they shall live. These are the people who know his best stories; the people who now live to laugh at what seemed, and perhaps was, their most distressful experience. In all walks of life there are those who know his uncanny skill and remarkable strength when the stress and strain become unbearable. No matter how dark the night, he always finds the ray of hope, and the gloomier the situation the greater is the optimism of his magnifying glass. What delightful recollections the name of Alfred Worcester must bring to the minds of the many who have come in contact with him! And there will always be associations with the name which are equally delightful. Mrs. Worcester, or still better, "Lizzie." Dr. Cutler. Dr. Wood. Mary. Frank. Martin. "Slainte." There are scores of them, and they are all intimate parts of a picture of the dear family doctor. This picture is fundamental to a complete understanding of his writings. Ardent, impetuous, enthusiastic flights to the peaks of knowledge and skill—in surgery, in obstetrics, in bacteriology, in education, in public organization—they have all taken off from the field of general practice. And they have all safely returned to their starting point. The writings of Alfred Worcester, regardless of the time when they were orginally published, are still modern, and be it ever remembered, they are the work of a family doctor.

The rich personality of Dr. Worcester is perhaps better reflected in his conversations than in his formal writings. Ask him what he knows about a certain rare condition, and he will unfold his clinical experience, enumerating his cases chronologically and describing them perfectly. Hear his comments on contemporary opinion as he goes along. Notice that he has due regard for laboratory tests, but see that he never lets them cross his understanding of each individual case. If his opinion differs from yours, look out—he is usually right. But the charm of his recitals is more in the telling of them. More than in any other capacity Alfred Worcester deserves a preëminent place in that of a skilled raconteur.

The daily life of a family doctor is always interesting. So it is with Dr. Worcester. Imagine him coming home in the early morning, after spending four whole days and nights in the home of a patient in labor. They were not wasted days. He had been writing, and he had assured the family that he could write in their home as well as his own. There is hardly time to go to bed, and he claims that a good bath is as good as a night's rest anyway. He hears that a raving maniac in an asylum has been out of control for two days, and that her frantic husband has been appealing to him to see if he couldn't do something. He goes to the asylum, is given a free rein by the authorities, and makes his way to the violent ward. The patient has barricaded herself in a room, and is hurling curses at all who plead with her to come out. He knocks on the door.

"Who's there?"

"Dr. Worcester."

"What do you want?"

"I want to come in." Then the furniture is moved, and the door opens barely enough for him to squeeze in, and shuts with a bang.

"There is nothing the matter with me," protests the patient.

"Yes, there is. You're crazy as a loon."

"What do you want?"

"I want to take you out for a ride. You are a good actress, even if you are crazy, and I want you to act as if you were sane. I will admire the beautiful view from this window while you put on the prettiest clothes you have. Tell me when you are ready."

Fifteen minutes later the patient gives the word, and they step out into the corridor. The hospital authorities gasp at Dr. Worcester's declaration that they are going for a ride into the country. "How many attendants do you want?" they ask.

"The whole back seat full."

They return safely after an hour's drive, and the patient is promised another ride the next day if she will continue to play the part of a sane person. The number of attendants is reduced day by day, and the patient eventually recovers from her maniacal condition.

He returns home and finds that there are several calls to be made. One of these is a man who has been in pain for several hours. It doesn't take him long to make a probable diagnosis of ruptured gas-

tric ulcer; nor much longer to get the man into the hospital and on the table, where he confirms his suspicions. "Henry" is there to help him. When they are through "Henry" goes to his office—it is just two o'clock—and "Alfred" makes his other calls. There often is not much to do for these other patients. One of them says that she knows he can't do much for her, but she just wants to "tell him" about it. Before he leaves he has done more than Mother Eddy herself could hope to do. No magic can compare with his. Before going home to dinner he swings round by the hospital again to see the man he has just operated on.

In the evening he goes down to the Training School. There is a meeting of the Board of Trustees for an important charitable organization. The Treasurer's report shows a deficit and it is announced that there are several large bills which are overdue. After the gloom is thickened by stories which are circulating through the community regarding inadequate equipment, etc., Dr. Worcester speaks up. "This is the most encouraging meeting we have had for a long time. No charitable organization which is out of debt is ever doing its full duty. The ground for these criticisms is so easily removed that we can set things right in no time. All we have to do is to buy new equipment."

"But don't you think these bills should be paid?"

"Of course. They should be paid before we spend another cent. I would like to be appointed a committee of one to raise whatever money is needed." And in two weeks he has done it. Probably a

million dollars has thus passed through his hands in the past forty years.

With Dr. Worcester the more one knows, the more one appreciates, and the more one wonders. How did he do it all? Very few wives would permit their husbands to develop such a picturesque career. Fewer still would encourage and inspire it, as Mrs. Worcester has. One sees here and there in the writings a hint of earlier inspirations. Here is the description of an old time neighbor nurse:

"She was herself the mother of a large family and yet ever ready to share the comforts of her home with the less fortunate. By the standards of today she would have been a social failure. For she gave no dinner parties,—although guests were welcome at any meal,—and she made no formal calls. Nor had she time to spare in visiting 'well' folks. But if she heard of any distress she hurried thither, to offer every assistance in her power. At night-fall she would trudge off alone, or with one of her boys as driver of the old mare and double-wagon, she would ride perhaps for several miles to the hill farm where the poor consumptive lay dying. . . . Her first task would be to persuade the worn out family to go to bed, and once they were asleep she would tackle the nursing job in right good earnest. . . . Under her gentle urging the broth would be taken and very likely some iced milk besides. Water fresh from the well would be given before it was even asked for. The hot face and hands would be bathed and cooled, and a hot foot bath given to induce

sleep. Were the patient quiet she would steal in noiselessly as if to guard the slumber. Were the patient restlessly wakeful, she would with soft sweet voice tell simple stories, or repeat 'The Lord is my Shepherd, I shall not want,' and the Lord's Prayer. . . . Well do her children remember her many a time returning after perhaps several days' absence, not exhausted as would be expected, but exhilarated by having shared a new mother's joy that a child was born into the world. To one of her sons, who she prayed might be a physician, she used to tell how great opportunities a good doctor has . . ."

That was sixty odd years ago, and that son was "Chips" Worcester, and that mother's prayer has been well answered. There is no question that "Chips" Worcester became the greatest student of Nursing that America has yet produced. By 1900 he had conceived the idea of an University Department of Nursing, and after two years of concentrated study at home and abroad had outlined every detail of its organization based on the fundamental purpose of the care of the patient, but not interfering with medical progress in any way. The professors of Nursing say nothing which he did not say twenty-five years ago. But we speak of Nursing here only as a chapter in Dr. Worcester's life. We are inclined to agree with those who consider it the greatest chapter. It is impossible faithfully to record it in this volume, and inasmuch as it has already been made permanent in *Nurses for Our Neighbors,* and other publications, we have not ac-

corded it, either here or in the selection of reprints which follows, the attention which it truly deserves.

Mention must be made, however, of the establishment of the Victorian Order of Nurses, for it has never been recorded elsewhere than in the daily press of the late nineties. As a part of Queen Victoria's Diamond Jubilee funds were presented to Her Majesty for the relief of the sick people of Canada. District Nursing was then unknown in the Dominion, indeed, except in a few places like Waltham it was unknown on this continent. Dr. Worcester thus found very little sympathy when he and Miss Charlotte Macleod undertook the organization of the Victorian Order. Work was begun in 1897. Suspicion and bitter opposition were expressed by the medical profession at the public meetings which they held in the Canadian cities and towns. This may explain the reluctance on the part of those who know the facts to tell them publicly; at any rate it would seem that the caustic attitude of the medical profession is an integral part of the story. The Canadian nurses, on the other hand, were not only in favor of the project, but they were much more progressive than their contemporary sisters in the United States in the way in which they took hold of the work. It is difficult to say whether the success of the undertaking was due more to Dr. Worcester's direction or to Miss Macleod's field work—they each insist it was the other. Perhaps it makes no difference now that it can be generally admitted it was a success, but it's a pity that the

history of Canadian Nursing is now threatened with the loss of an authentic account of one of its great dramatic periods.

The first clinical experiences of Alfred Worcester came at the Boston Lying-in Hospital at a time when the profession was still unable to cope with puerperal sepsis. Twice in one year the Hospital had had to close its doors because of the septic curse. A friend of Dr. Worcester's, returning from Vienna, told how effectively the disease was dealt with there by the simple use of a solution of mercuric bichloride, and Dr. Worcester forthwith crossed the street to the apothecary shop. The chemist was asked for a solution of mercuric bichloride. "A solution in what?" he countered.

"Water."

"It's insoluble in water."

"What will it dissolve in?"

"Alcohol."

"Give us that." And the practice of buying solutions of bichloride in alcohol in gallon bottles was begun. The solution was placed in a basin beside the delivery table when the chief of the staff came in and asked, "What's that?"

"Mercuric bichloride, sir."

"What for?"

"To wash your hands in, sir, before you begin delivery. It's to prevent infection, you know."

"You damn fool—you'll be scrubbing the perineum next."

It was probably his great interest in people and

his love for humanity that led Dr. Worcester away from the narrow fields of laboratory research which were opening up at that time, and urged him into the art of practice. In the late eighties, associated with Drs. E. R. Cutler and H. A. Wood, he began a determined fight for the surgical treatment of appendicitis. At first regarded as criminally radical in his views, he held every inch gained until, in 1892, he had said all that there is to be said on the subject of appendectomy. The papers which follow, including one by Dr. Cutler, case XI of which is an account of the first deliberate excision of the appendix on record, tell the story of medical thought in Waltham at that time. In an account of Dr. Worcester's own operation by Dr. J. W. Elliot, which is not here reprinted, it is stated that the fortunate outcome was greatly influenced by the devotion of Dr. H. A. Wood who for a period of two weeks scarcely left the patient's bedside. Professionally Dr. Wood has been beside him ever since. There are few family doctors who have got over the stone walls of medical progess with the agility of these two men.

It was in these early years of practice that a distinguished bacteriologist returned from Europe and proceeded to capitalize his ability to recognize the diphtheria bacillus. He taught the necessity of repeated cultural examinations before the lifting of diphtheria quarantine. The practitioners, eagerly following his teachings, soon found themselves with cases of the diphtheria carrier condition on their hands. Dr. Worcester was the first to remonstrate that the economic condition of certain families pro-

hibited their buying this service when it lasted for weeks and months. Five days after he was told that there was no relief in sight for such unfortunate people, he was crossing the Atlantic with a zealous, furious, vehement enthusiasm. He returned, himself a master in the recognition of the organism.

A Case of Cæsarian Section, reprinted in the following pages, is an example of his work—" . . . and as they would not consent to my strong urging that she should be sent to the Hospital for Cæsarian section, I retired from the case." For choosing this method of delivery (it hadn't been done before in Massachusetts for more than fifty years) he brought upon himself severe condemnation from some highly respected quarters of the profession. One eminent colleague actually suggested that Dr. Worcester's friends should take steps to have him put away before the public realized what a great menace was abroad.

With the help of his mechanically inclined friends he built the first incubator for premature infants and the first dry steam sterilizer for hospital use. He has an accurate record of the details of two thousand midwifery cases. In 1895 he was critically studying the therapeutic straws at which the profession were grasping for tuberculosis, and had recognized that "before the diagnosis can be made by the microscope it can generally be made without it."

Thirty years ago consumption was not even a medical problem—it was just a calamity. The greater part of the profession was concerned only with the care of the dying patients. Dr. Worcester was one of the few who had caught the optimism of Dr.

Vincent Y. Bowditch and his pioneer work at Sharon, Mass. They were somewhat like the Irishman who didn't think Niagara Falls was particularly wonderful—after all there was nothing to keep the water from coming over. It was extremely fortunate for Massachusetts that Dr. Worcester was one of a commission of five appointed to begin the State tuberculosis work. There was not at that time a single public tuberculosis sanitarium in the United States. A politician insisted that the hospital should be erected in South Boston. A member of the Harvard Medical faculty didn't care so much where the hospital should be erected so long as it should be conveniently accessible to the Medical School. It was Dr. Worcester's optimism, his belief in curing the early cases, his love for action, his disregard for precedents, and his personal powers of persuasion that gave to Massachusetts the Rutland Sanitarium—an example to every other State in the Union!

During the World War, how he tried, was turned down, and tried again to be accepted for military service; how he finally was commissioned as a Major under the American Red Cross in Switzerland; how he fought tooth and nail to send parts of the huge supply of American food-stuffs into the enemy countries after the armistice; how well he interpreted the Christian spirit of the American Red Cross, and the letters of gratitude which he received from those whom he had saved, written in every conceivable language; these things alone comprise a real human document, which does not here become a printed document.

Most recently, as President of the Massachusetts Medical Society, in his investigations and recommendations regarding maternal morbidity and mortality throughout the State, he again brought upon himself the scathing criticism of his fellows. But in this, as in all things, we need but wait a few years to realize that Dr. Worcester was right. He has always convinced people in spite of themselves, and after he has prevailed there have always been a large number of people who continued to think that the wrong decision had been made. Only after the lapse of years, after the issues themselves have been forgotten, has the logic of his reasonings dawned upon the rest of us.

Now this general practitioner approaches his seventieth birthday. Money and fame would have been his for the asking, but his talents have been devoted to the interests of others. This book is not an adequate memorial. We hope that it may inspire a greater respect and affection for all general practitioners, and may perhaps be an incentive for younger men to shoulder the sorrows and the responsibilities, the joys and the privileges of the family doctor.

Before now great men have told the fledgelings the secrets of success. We have no reason to believe that Dr. Worcester's advice to any of the younger generation would differ from that which he has repeatedly given us: "Go it while you're young." Just so. At seventy, Alfred Worcester is still young and is still going it.

H. QUIMBY GALLUPE
DWIGHT O'HARA

ALFRED WORCESTER

June 22, 1855
Born at Waltham, Massachusetts

1878
A.B., Harvard. Phi Beta Kappa

1878-1880
Instructor at the Waltham High School

1881
A.M., Harvard

1883
M.D., Harvard
Interne at the Boston Lying-in Hospital

1884
Practice of Medicine at Waltham, Massachusetts

1885
Founder of the Waltham Training School for Nurses
Founder of the Waltham Hospital

1886
Married to Elizabeth Joy Hill, Portland, Maine

1895
Founder of the Rutland Sanitorium

1897
Founder of the Victorian Order of Nurses, Dominion of Canada

1899
President of the Obstetrical Society of Boston

1902
Founder of the Waltham Baby Hospital

1906
President of the Harvard Medical Alumni Association

1918-1919
Major in the American Red Cross

1919-1921
President of the Massachusetts Medical Society

THE WRITINGS OF ALFRED WORCESTER

Permission to reprint the articles selected from this list has been kindly granted by the journals to which they are credited.

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With the exception of THE ORIGIN OF THE NEW ENGLAND TOWN MEETING and REMINISCENCES, these works are available, either in the Waltham Public Library or the Boston Medical Library. There are scores of addresses on the subjects of Small Hospital Organization, District Nursing, Home Nursing, etc., which have probably never been put into the form of manuscript. These represent Dr. Worcester's life-long habit of giving the benefit of his experience to other communities, which has born fruit far and near.

EDWARD ROLAND CUTLER

was born January 15, 1840, at Boston, Mass. After two years of premedical study at Williams College he entered the Harvard Medical School in 1860. He received the degree of M.D. in 1863. On the day of his graduation he walked directly from the Medical School to the State House where he enlisted in the medical corps and was commissioned as Assistant Surgeon in the United States Army. On April 28, 1864, he was married to Melvina Amanda Rogers at Washington, D. C. He rendered distinguished service on the field of battle, and at the close of the war held the rank of Chief Surgeon. During the years of 1865 and 1866 he engaged in the practice of medicine at Hartford, Conn. The three years between 1866 and 1869 he spent in study abroad, returning from Vienna in 1870 to engage in the practice of medicine at Waltham, Mass. He retired from active practice in 1906. Throughout his years of practice Dr. Cutler was an unceasing reader of medical literature. Like his younger associates, Drs. Wood and Worcester, he had an unusually clear and discerning insight into the medical problems of the day. Dr. Cutler should be remembered as one of the ablest physicians of that generation which witnessed the birth of scientific medicine.

ELEVEN CASES OF OPERATION FOR APPENDICITIS

A PAPER BY DR. EDWARD R. CUTLER

Reprinted by permission from the Boston Medical and Surgical Journal, June 6, 1889.

"Harbors are made safe for mariners not by records of prosperous voyages, but by buoying the dangerous reefs and sunken ledges that have caused disasters."

ELEVEN CASES OF OPERATION FOR APPENDICITIS

I propose to give a very brief sketch and analysis of eleven cases of appendicitis treated by operation during the past two and a half years in my vicinity. I have met during that time a considerably larger number of cases, closely resembling these at the outset, all of which have recovered without operation, though one at least with serious damage.

In several of these latter cases the question of operation has been anxiously discussed. In only one of them do I regret not having operated, and in that one there was really no time even for discussion, my first visit being made late in the evening and discharge occurring through the intestine before morning, the final result being the sloughing out bodily of four inches of the rectum with the recto-vaginal septum and the perineum.

I shall group these cases pathologically, not chronologically.

The first group comprises six cases of abscess, either extraperitoneal or encapsulated within the peritoneum.

CASE I. June 20, 1886, A.B.C., conductor. Gradual formation of tumor in right inguinal region, with all the usual symptoms. No general peritonitis. Aspiration and incision on the ninth day. Drainage for two weeks. Free discharge of faeces on the sixth and seventh days after incision. Healing complete on the eighteenth day and health good since, except for the development of a very intractable inguinal hernia.

CASE II. In the practice of Dr. Worcester. Nellie M., nine years old, August 18, 1886. Ordinary symptoms of appendicitis for nine days. Physical signs less marked than in previous case, but notable dulness in right inguinal and lumbar region at the end of that time without general peritonitis. Aspiration and incision. Lump of faeces discharged with the first gush of pus. Drainage six days. Child in school at end of three weeks.

CASE III. B.M., boy of thirteen. July 13, 1887. In the practice of Dr. C. J. McCormick. Usual symptoms accompanying gradual growth of a distinct tumor in the right inguinal region, without general peritonitis, for six days. Then aspiration, incision and successful drainage for three days, when patient died, apparently of exhaustion. No autopsy allowed.

CASE IV. Dr. A. Worcester, 32. Oct. 29, 1887. Surgical treatment of this case was in the hands of Dr. J. W. Elliot of Boston. This case has been fully reported, and I very briefly mention the important points in it, viz., intense pain much of the time; general peritonitis; unsuccessful aspiration on the sixth day; laparotomy on the eight day; opening and draining of the intra-peritoneal abscess. Wound closed in ten weeks and recovery perfect.

CASE V. C. E. L., machinist. Sept. 5, 1888. In the practice of Dr. Worcester. Moderate pain and fever for twelve days, with the gradual formation of tumor in the right inguinal region without general peritonitis. Incision, counter opening, and drainage through posterior lumbar region, and uninterrupted recovery.

CASE VI. Boy of 12. Oct. 25, 1888. Practice of Dr. Tilton of Lexington. Gradual development of tumor in the usual location through a week or more of general peritonitis. Incision, drainage, and recovery.

Brief analysis of this group shows recovery in all except one and absence in all of purulent peritonitis. In the case of Dr. Worcester there probably was general peritonitis, judging from the uniform distention and tympany, but there was no free pus in the abdominal cavity. In five of the cases there was distinct dulness on percussion, with more or less well marked cake or tumor.

The second group comprises five cases of general peritonitis, though the last one may seem at first sight to be an exception:—

CASE VII. Fred L. C., clerk. Early in 1887. In the practice of Dr. Bancroft. Imperfect history. Abdominal pain four days. Domestic treatment by cathartics. When first seen by Dr. Bancroft late in the evening, there was a temperature of 99; pulse 130. General peritonitis. Next morning patient moribund, but it was decided to open the abdomen and flush out with hot water in the hope of setting up a reaction. Incision was made and followed by discharge of a small amount of fetid pus, but reaction did not occur and patient died in two hours. Autopsy refused.

CASE VIII. Wm. H. McA., storekeeper. April 20, 1887. History of constipation with abdominal pain several days, followed by sudden and severe pain, vomiting, etc., and gradual development of signs of

peritonitis during the next three days with only very slight dulness in the right inguinal region, and no tumor. At the end of this time the aspirator was introduced, but pus, perhaps two ounces, found only at the end of the third thrust, which was made in the lumbar region the full length of the needle. Incision in linea semilunaris revealed intense purulent peritonitis. Patient died in ten hours. Autopsy showed, beside usual evidences of peritonitis, a long appendix turned up under the caecum, with its point well toward the median line, where more pus was than anywhere else. The aspirator needle had undoubtedly reached this small collection passing through or under the ascending colon to do so. The appendix was perforated near its distal end.

CASE IX. In the practice of Dr. Bancroft, of Wellesley. Boy of ten. Nov. 4, 1888. Tenth day of sickness. Intense general peritonitis supervening on the usual symptoms. Patient very weak and cyanotic and abdomen greatly distended. Prognosis very grave. Laparotomy. Abdomen full of pus and recent adhesions. No attempt to search for the appendix on account of the patient's condition. Boy died during the following night.

CASE X. D. M., laborer. Nov. 28, 1888. Severe sudden pain in the abdomen, with vomiting. Saw the patient after twenty-four hours. Found the abdominal walls very tense and retracted. Great tenderness in the right inguinal region, but no dulness or tumor. Next day only slight change. Next day abdomen considerably distended. Laparotomy. Intense general peritonitis with adhesions, but no

shutting off of seat of original disease. Pelvis filled with pus. After little search the appendix was found fastened in a mass of adhesions on the edge of the pelvis. After liberating it, it stood up out of the incision at least three inches in length and with its swollen envelopes one and one-half in thickness at its base. Of course it is now shrunken out of all proportion to its size in situ. The distension of the abdomen and the adhesions made it very difficult to get at the origin of the appendix in the cæcum, and so no attempt was made to approximate the peritoneal surfaces of the stump; but the appendix was simply tied with silk and amputated. The patient began to fail in a few hours, and died before the next morning. No autopsy could be obtained.

CASE XI. S. C. W., station agent. Dec. 21, 1887. Violent pain in right inguinal region, with tenderness, vomiting, and fever, but absolutely no physical sign. Laparotomy at end of forty-eight hours. A little turbid serum escaped, but no pus. The appendix was readily found and drawn out at the incision, together with a portion of the caecum. It was not more than one and one-half inches long, swollen quite hard and standing straight out from the caecum, which was likewise intensely inflammed. It was perforated at two points adherent to a contiguous coil of intestine, gangrenous superficially and exceedingly friable through its whole substance. Its mucous lining was red and thick. I could find no communication between its lumen and that of the caecum. The peritoneal investment of all the adja-

cent parts was deeply congested. The appendix was cut off near the cæcum and its peritoneal surfaces rolled together as well as the brittle condition of the stump would permit, and fixed by a continuous suture of fine catgut. Drainage for a few days. The patient left town in just two weeks, and remained well at last accounts several months after operation. I have said that the last case may SEEM to be an exception in a group of cases of purulent peritonitis, but when it is remembered that the operation was done in forty-eight hours from the first pain, and that a perforated, intensely inflamed and even gangrenous appendix lay almost free in the abdominal cavity, I think that no one can doubt that in forty-eight hours more we should have had an abundance of adhesions and pus in place of simple red and turbid serum.

Clinically and therapeutically these cases require a slightly different grouping, that of Dr. Worcester falling into the second group. The distinctive features of the first group are the gradual development in the right inguinal region of a hard mass or tumor, during a week or more of fever, pain, etc., and which marks the pointing of an abscess. The mass is dull on percussion, though there may be an obscure and deep tympany. It is evidently in contact with the globular swelling which forms in still milder cases, but which does not reach the surface and which undergoes resolution. The unmistakable, though not urgent, indication is for incision and drainage. The second group is characterized by more intense and persistent pain, limited to the right inguinal

region at first, but soon spreading more or less through the abdomen and by the other signs of general peritonitis, especially tympany and distension. Whether this state of things develops rapidly from the very beginning of the case or supervenes later upon a mild attack, the lesson of these cases, I think is that laparotomy should be promptly done, the perforated, inflamed appendix removed, together with any other offending substance which can be found. The indication is imperative and urgent, and every hour's delay is dangerous.

Had it been early enough heeded in the four fatal cases of this group, I believe the result would have been more favorable. In two of them I thought at the time that the operation was reasonably early—the fourth day in one and the third day in the other, but the result proved it otherwise. The gratifying issue of the case operated upon within forty-eight hours strongly corroborates the above inference. Here no time was lost in waiting for peritonitis, the almost uncontrollable pain, with continual fever, seeming to us to justify extreme measures. I think the relentless and morphia-defying pain often accompanying peritoneal perforations as well as the early stages of purulent inflammation of serous membranes has not been ranked as high as it should have been as a pathognomonic symptom and a therapeutic indication.

Finally, I shall hazard the expression of a belief which I certainly entertain that if every case, without exception, of undoubted appendicitis—and the diagnosis is seldom doubtful—were treated on the

second, or at least the third day of persistent symptoms by the removal of the appendix and its escaped contents if possible, we should avert in the aggregate a vast amount of pain, expense, and loss of time from our patients, and we should save many more lives than we do now. True, the majority of cases recover. How many of them, however, do so after protracted illness and with serious disability and great likelihood of recurrence? How many of them would have recovered much more speedily and permanently after operation no one can say. I believe nearly all.

I know the time is not ripe for taking this stand in practice, but I believe it is rapidly ripening.

EIGHT CASES OF APPENDICITIS

1889

"It WAS good surgery to cut anywhere for foul pus. It IS better surgery to remove what will inevitably cause foul pus if left to nature's management."

EIGHT CASES OF APPENDICITIS

In reporting these cases of appendicitis which have been treated during the past year by my colleagues of the Waltham Hospital and by myself, I want to emphasize the importance of early surgical interference in the treatment of this disease. There are possibly two kinds of appendicitis. One kind gets well of itself, and therefore does well under any treatment. This is the kind physicians cure. For a day or two it may frighten the surgeon, but generally from the first the symptoms moderate. As this kind of appendicitis never turns up on the autopsy or even on the operating table, it is perhaps impossible successfully to dispute its right to the name "appendicitis." Why not call it "peri-appendicitis?" The other kind of appendicitis certainly deserves the name, and the following cases are all of this kind. That death resulted in only one of the eight (and in that case it will be noticed the early operation here advocated was not allowed) is not due to any special skill on the part of the operators, and certainly not to any mildness in the form of the disease, but is entirely due to the earliness of the operation.

We believe that genuine appendicitis results in gangrene and perforation of the organ. If not interfered with there follows either immediate general peritonitis, or local peritonitis with the formation of an abscess which may safely discharge its foul and fearfully septic contents but is liable to discharge into the abdominal cavity. We realize most keenly

that in the first stage of the disease it is an easy matter to nip it in the bud, before the gangrenous organ is bound down by adhesions of neighboring mesentery, omentum and bowels. And in view of the entire safety of the early operation, and of the fearful risk that is incurred by waiting, we believe not only that the early operation is justified, but that delay is inexcusable. It *was* good surgery to cut anywhere for foul pus. It *is* better surgery to remove what will inevitably cause foul pus if left to nature's management.

The best time for operating will vary in every case. It cannot be determined beforehand, nor by the gravity of the symptoms at any hour, but by the progress of the disease. The proper treatment of the disease being surgical, cases of appendicitis should be in the surgeon's hands from the start. I do not know of any case where an operation has been done too early, and, in view of the multitude of cases where death was due solely to the surgeon's delay, I believe if ever laparotomy is done, as it shall prove, needlessly, that it should nevertheless, be justified as "explorative."

CASE I. Mrs. A. L. H., patient of Dr. E. R. Cutler's, a healthy woman in the prime of life. Has been subject to attacks of "colic." On January 6, 1889, the pain began in the morning and increased through the day. Her evening temperature was normal. There was tenderness on pressure, but no evidence of tumor in the right iliac lumbar region. The next day there was more pain, and the evening temperature was 99°. After a fairly good night, her

temperature was 100°. Micturition difficult. Severe pain in vagina and in right abdomen, which was slightly distended and very tender. There was no dulness on percussion, and only a slight resistance on pressure. *Per vaginam* the uterus was found slightly pushed to the left and exquisitely painful if moved by the finger. Rectal examination negative.

Operation fifty-four hours after initial symptoms. Incision three inches long in the right linea semilunaris. A few ounces of turbid inodorous serum escaped. The swollen appendix was easily found and drawn outside. Its tip was gangrenous. Owing to the firmness of the adhesions binding down the cæcum, it was very difficult after amputating the appendix to approximate the peritoneal surfaces of its stump. Silk sutures were employed. The abdomen was flushed with hot boiled water, and the wound closed with silk-worm gut sutures. She rallied fairly well, but for five days could keep nothing in the stomach. Peptonized enemata kept her alive. The temperature for the first week was normal. The troublesome distention of the abdomen was relieved by turpentine enemata and use of rectal tube. During the second week the stitches were removed and there was a slight discharge of thin odorless pus. On the twelfth day there was discharged from the sinus a silk ligature which had been left in by oversight; and a week afterwards the silk sutures which had been used on the stump were also discharged. Recovery perfect.

CASE II. W. H. C., a farmer, forty years old, when first seen by Dr. E. R. Cutler, March 8, 1889,

had had pain in right abdomen for nine days and had been confined to his bed for three days. He had vomited frequently. His abdomen was moderately distended, tympanitic except in right lumbar region where there was a well-marked tumor. Pulse 90, temperature 100.6°. He was at once removed to the hospital for operation.

Incision three inches long in the right linea semilunaris. The omentum was adherent to the peritoneum. On breaking through it there escaped a pint or more of clear fluid. The appendix was found after long search, delayed by the strong adhesions in its neighborhood. It was swollen, grayish and perforated. After amputation, the peritoneal surfaces of the stump were approximated by cat-gut sutures. Abdomen flushed with hot boiled water. Wound entirely closed with silkworm gut sutures.

He rallied well from the effects of the operation, but began hiccoughing the next day. This contiued for several days and was relieved only by amyl nitrite inhalations. On the fourth day, the wound looking badly, one stitch was removed. Foul pus escaped. Two days after, all the stitches were removed. The edges of the wound were then sloughing. During the second week the wound became healthy and the edges were drawn together by adhesive plaster. At the end of the third week he was discharged well, except for granulating sinus. Contrary to advice he began working too soon, tramping over rough country several miles sometimes. Two months after his discharge he was readmitted to the hospital with a supposed abscess of the liver.

He was expectorating, vomiting and also voiding per rectum pus very freely. His condition seemed desperate. Dr. M. H. Richardson saw him in consultation and agreed that his condition did not warrant any operative interference.

He gradually rallied. The expectoration of pus ceased. In a month he was again at work, and has since, so far as is known, continued well.

CASE III. J. C., a strong healthy machinist, thirty years old. From boyhood had been subject to occasional attacks of severe "colic." On June 1, 1889, worked hard all day, lifting more than usual. He was taken sick that night; pains in belly not relieved by vomiting. When seen the next day by the writer he complained of severe pain in the umbilical region. There was no tenderness on pressure nor dulness on percussion in any part of the abdomen. Pulse 74, temperature normal. The next morning the pulse was 80, temperature 99.8°. There was retention of urine. The pain was more severe and was now referred to the right abdomen. There was slight dulness and considerable tenderness in the right lumbar region. That evening his pulse was 90, temperature 102°. The pain was now definitely located in the region just described, and above the crest of the ilium there was marked dulness and great tenderness. Rectal examination negative.

On June 4th, sixty-six hours after initial symptoms, the patient having been removed to the hospital underwent operation. Incision through abdominal walls two and one-half inches, in the right linea semilunaris. Exactly where the pain and ten-

derness had been most marked was found the rigid appendix lying along the outer side of the colon, pointing upwards and outwards. Delicate adhesions connected its mesentery with the colon and a neighboring coil of the small intestine. The appendix was easily brought outside. It was four inches long, gangrenous in its distal half. Its mesentery extended nearly to its tip. This was ligatured with cat-gut, and the appendix, having been cut loose from it, was amputated by a V-shaped incision. The flaps of the stump were then rolled in and their peritoneal surfaces approximated by fine silk sutures. Abdominal cavity washed out with hot boiled water. Wound closed with silkworm gut sutures. No collapse followed.

The next day his temperature was normal. The second day his bowels were moved by salts and enemata. He was free from pain and fever for five days. His wound had then entirely closed. But an abscess developed where the appendix had lain, which was evacuated on the ninth day by reopening the wound. Discharge from the hospital on the twenty-fourth day. Recovery complete.

CASE IV. R. S., a healthy school boy of thirteen years, was feverish the night of June 12, 1889. The next morning he vomited and complained of pain in abdomen, especially on the right. There was frequent vomiting and increasing pain for the following forty-eight hours. When first seen by Dr. E. R. Cutler, fifty-six hours after initial symptoms, the abdomen was distended and exquisitely tender. Examination under anæsthesia developed distinct dul-

ness on percussion and decided resistance on pressure in the right iliac lumbar region. He was at once removed to the hospital for operation.

Incision three inches in the right linea semilunaris. Pus escaped on opening the abdomen. A sloughing friable mass presented, which was found to be of omentum wrapped around the appendix. The peritoneal investment of the cæcum and several inches of the colon on its outer side was sloughing, but the muscular wall of the bowel seemed healthy. The proximal third of the appendix was intensely red and swollen. The distal two-thirds was gangrenous, and at the beginning of this portion were several concretions the size of a pea, retained in the appendix only by its greatly thinned and probably perforated walls. The appendix was amputated beyond, a cat-gut ligature applied near its base. The sloughing omentum was also amputated, after ligaturing it in several sections. The abdomen was thoroughly flushed out with hot boiled water. A drainage-tube was employed.

Patient rallied well. The next day was very comfortable. There was, however, an offensive discharge from the tube, and on the second day the wound had to be reopened; its surface was black and sloughing. On the fourth day intestines protruded. For three weeks his temperature ranged from 99° to 103°. His abdomen was greatly distended. He suffered great pain. The discharge from the wound was copious and offensive. When this fæcal discharge ceased, the boy nearly died of intestinal obstruction, which was finally relieved by dilating the

sinus and opening an inflated coil of the intestine. A large evacuation of gas and liquid fæces occurred. The patient's condition greatly improved and natural evacuations of the bowels were re-established. But the constant acrid fæcal discharge from the wound irritated it and the surrounding skin most torturingly.

The convalescence was very tedious. An attempt to close the fistula failed. But now at the end of five months, although there is still some fæcal discharge from the sinus, the boy is able to walk out of doors and is in very good general health.

CASE V. F. H., a large healthy lad of sixteen years, has had during the last few years occasional attacks of "belly-ache." On June 13, 1889, was struck by a base ball in region of umbilicus. He thought little of the blow till the next day, when there developed loss of appetite and nausea. That night and the next day he vomited bile frequently, and when first seen by the writer on the afternoon of the 15th, he complained of the same pain that he had suffered when struck by the ball. He was wandering about out of doors. His pulse was 110, temperature 102°. Abdomen soft and not tender on pressure. June 16th, temperature 101°, vomiting less. June 17th ,temperature 100°, slight tenderness in right abdomen. June 18th temperature 99° increased tenderness and some pain. During the three days following, his temperature rose steadily to 102°. The pain did not increase; but the tenderness and resistance on pressure, and dulness on percussion in the right iliac lumbar region became more

marked. Rectal examination negative. The diagnosis of appendicitis was not assented to by consultants till June 20th, and the operation then advised was not allowed by his parents till June 21st, when he was removed to the hospital.

Incision two and one-half inches in right linea semi-lunaris. In the iliac fossa was found a dense mass, from which escaped several ounces of foul pus, on pushing into it with the finger. In the abscess cavity (which was poorly defined, and extended upwards alongside the colon into the loin) lay the gangrenous perforated appendix on the inner side of the cæcum and pointing downwards.

In attempting to lift it into view, three inches of it tore off. It was not possible to move the cæcum so as to get at the appendix stump. After amputating some of the gangrenous friable omentum, which had served as part of the abscess wall, and thoroughly washing out the abdomen, a drainage-tube was left in the abscess cavity where the appendix had lain, and a second tube carried up into the loin. The abdominal wound was sutured with silkworm gut.

During the operation the patient suffered considerable collapse. The next day his temperature was 100°, and pulse 140. There was very little discharge from the drainage-tubes. The second day his temperature was 102°, pulse 160; delirious. The third day he died. There was no autopsy. But on removing the drainage-tubes there escaped thick, dark, foul pus.

CASE VI. J. D., a healthy boy of fifteen years,

was taken sick August 4, 1889, with severe pain in the right abdomen. Six years before was confined to his bed for a month with pain in belly and inability to move his right leg. During the first four days of this attack he was under the care of Dr. Titcomb of Concord, who reported a steady increase of fever and of the rational signs of appendicitis. When first seen by the writer his temperature was 103°, pulse 114. The belly was distended, but not so as to obscure a tumor in the right, which was dull on percussion and very tender. Rectal examination negative. He was removed to the hospital, and operated upon at 9 P.M., August 8th. The incision, two inches long, parallel to the crest of the ilium and one inch removed, most happily avoided a loop of intestine which was found firmly adherent to the abdominal wall only a half inch towards the median line. The cæcum and the ascending colon, packed with fæces, was bound down in the iliac fossa, and pulsated with the iliac artery. To the outside of it, and above the crest of the ilium was found an abscess from which was evacuated about two ounces of very foul pus. No trace of the appendix was discovered. After thorough irrigation with hot boiled water, a drainage-tube was carried into the abscess cavity and the wound otherwise closed with silkworm gut sutures. For some days after there was a slight discharge of serous pus, never foul, from the tube, which was removed on the sixth day. On the second day, there was considerable pain which was entirely relieved on moving the bowels by salts and copious enemata. The high-

est temperature after the operation was 100.2° on the first day, and never above 99°, thereafter. Discharged from the hospital on the twelfth day. The sinus, where the drainage-tube lay, closed a fortnight afterwards, and at the end of a month the boy was as well as ever.

CASE VII. J. O., a very strong laborer, thirty years old, was in the hospital for a week in December, 1888. He had then every symptom of appendicitis, but was not operated upon because from his entrance he steadily improved under medical treatment. He had had two similar though less severe attacks before. For ten months after he was perfectly well.

Soon after midnight, October 11th, he was seized with intense pain in the right iliac lumbar region. His pulse at 4 A. M. was 110, temperature 98.8°. At 4 P. M. his pulse was 110, temperature 102°. He was then removed to the hospital. The next morning his fever had not abated. There was great tenderness and pain, but little dulness and no tumor, in region above described. Examination per rectum negative.

Operation thirty-six hours after initial symptoms, by Dr. H. A. Wood. Incision two and one-half inches along outer border of right rectus. Purulent fluid escaped on opening the peritoneum. Intestines coated with lymph flakes. The appendix was found fastened down to a mass of inflamed omentum along the outer side of the cæcum and colon. It was probably perforated, for a small soft fæcal concretion was found near it. On account of the firm adhesions and the proximity of the apparently healthy omen-

tum the appendix was not removed. A rubber drainage-tube was placed next it and a second tube left in to drain the pelvis where was found considerable free pus. After flushing out with hot boiled water, the wound was closed with silkworm gut sutures.

Very little shock. No vomiting. The second day after the operation he took liquid nourishment freely. The third day his bowels were moved by salts and enemata. There was very little pain and all went well for six days, when he again became feverish and suffered more pain in the region of the wound. The discharge, which was at first inodorous, became foul. A sub-peritoneal abscess which formed alongside the wound was thought to have been occasioned by infection from the drainage-tubes after shortening them, thus bringing the holes of the tube against the sides of the wound. The tubes and sutures were removed on the eleventh day, and thereafter the convalescence was uninterrupted. Discharged on the twenty-fifth day with only small sinuses where the tubes lay.

A fortnight later was walking about town as usual.

CASE VIII. P. F., previously healthy man, twenty-two years old, was seized with pain in the right iliac lumbar region at noontime October 29, 1889. He vomited frequently. The next morning when first seen by Dr. C. J. McCormick, there was pain, tenderness and dulness in region above described. Pulse 80, temperature 99.6°. The next day his condition was unchanged, but there was more pain that night. The third day his pulse was

100, temperature 103.6°. He was then removed to the hospital for operation.

Incision two and one-half inches along outer border of right rectus. A small amount of pus escaped on opening the peritoneum. The appendix was easily liberated from adhesions binding it to the cæcum. The omentum attached to it was amputated after ligaturing it in sections with catgut. One and one-half inches of the distal portion of the appendix was gangrenous. It was amputated, and the stump ligatured with catgut. After flushing out the abdomen with hot boiled water and laying a drainage-tube from where the appendix had lain the wound was closed with silkworm gut sutures. No shock followed the operation. His pulse the next day was 88, and temperature 99.2°. There was slight discharge of pus from the tube.

The second day he had more fever and vomited frequently. The edges of the wound becoming œdematous several sutures were removed. The discharge of pus was then more free, and his general condition much improved. On the eighth day the remaining sutures and the tube were removed.

Except for the necessity of being catheterized for a week or so, and for a small hard swelling in the abdominal wall below the wound which disappeared spontaneously, his convalescence was uninterrupted. He was discharged entirely well on the twenty-fifth day after the operation.

Dr. W. F. Whitney kindly gives the following description of the amputated appendices in cases III, V, VIII.

CASE III (J. C.) The portion removed was 5.5cm. ($2\frac{1}{8}$ in.) long. The surface was slightly roughened and at about 1 cm. ($\frac{3}{8}$ in.) from the tip was a rounded swelling about 3 cm. ($1\frac{1}{4}$ in.) in extent. At one point the covering was blackened, thinned, and evidently on the point of rupture.

CASE V (F. H.) The portion was extremely shrunken from the preservative, and measured 5 cm. (2 in.) About half-way was a small hole with ragged edges, from which protruded a small slough.

CASE VIII (P. F.) The portion, which was somewhat shrunken from the alcohol, measured 3.5 cm. ($1\frac{3}{8}$ in.) in length, and 7 mm. ($\frac{1}{4}$ in.) in diameter. The external surface was roughened evidently from inflammation. On section, the lumen was filled with fæcal concretion. Microscopic examination showed the mucous membrane eroded and destroyed. The submucous and muscular coats were infiltrated with round cells, and at the point of attachment of the mesentery was a localized accumulation of cells, that could be regarded as a small abscess. There was no indication anywhere of perforation, but a slight extension of the inflammation must have resulted in it.

THE TREATMENT OF APPENDICITIS

1892

"I am certain in my own mind that we will have to wait but a few years before the right treatment will be laid down and applied, and that is to operate first, last and every time in cases of appendicitis."

THE TREATMENT OF APPENDICITIS

The appendix vermiformis is, so far as is known, a useless organ. This is very likely the reason of its proneness to decay. Any inflammation of it is likely to become gangrenous in character, and to result in the partial or complete obliteration of the organ. This is Nature's method of treatment. But grave dangers attend this natural process. Either by direct extension of the inflammation, or by infection from the perforated bowel, there is likely to result a circumscribed peritonitis, a localized abscess, or a diffuse purulent peritonitis.

At the beginning of an attack of appendicitis it is easy to make the diagnosis, but not possible to foretell whether the inflammation will quietly subside or will result in one of these complications. And if the attack does quietly subside, the patient is afterwards very liable to successive attacks each more likely to result disastrously.

There is only one logical treatment of the disease, namely, *the excision of the diseased organ as soon as the diagnosis is made.* No other intelligible rule can be formulated. If followed, the disease now so dreaded will be robbed of its present fearful fatality.

To demonstrate this proposition it is only necessary to establish the verity of the statements I have already made and to show the absolute safety of the operation advocated, and this I propose to do.

No one, I suppose, will contend that the appendix is of any use, or that its removal is the slightest disadvantage. Nor will any one now dispute the

statement that the appendix is prone to inflammation, which is liable to become gangrenous, and thus cause serious complications.

There may be some who feel themselves able to decide at the beginning of a given attack of appendicitis whether it will prove to be of the mild and comparatively harmless or of the dangerous kind.

Many writers on the subject have attempted to lay down rules for making this distinction. But there is no uniformity among such writers, nor is there any consistency; their opinions are undergoing evolution. Most surgeons and nearly all physicians still cling to the frightfully unjustifiable policy of waiting for time to determine this question. With never a twinge of self-reproach they keep reporting cases of appendicitis where the patient's life was endangered or even sacrificed by their Fabian policy; and, because they can also report cases where the attack proved to be of the mild, harmless sort, they declaim against the men who operate in every case.

It is, however, very plain that these advocates of the waiting and watching policy are learning to watch more closely and to wait less and less.

In their laudable efforts to discover the signs of the proper time for surgical interference they are hurrying towards the only logical position. Even now the most experienced look forward longingly to the comfort of finally being able to stand on both feet in the presence of this heretofore dreaded disease. Some surgeons, who, even a year or two ago, were describing the advantages of operating on the fourth or on the third day, are now admitting that

the time for operating is not to be estimated in days, but is to be determined by the undoubted presence of pus in the neighborhood of the appendix. When such surgeons have taken the next step forward, and will allow that the time for operating is when when there is an undoubtedly circumscribed peritonitis, they will find themselves at last on sure footing. For without the presence of a circumscribed peritonitis it is probably not possible to diagnosticate appendicitis. If it is possible, then still will the rule hold to excise the appendix as soon as ever the diagnosis of its inflammation is made. In such case the operation will be even easier; not more safe, for the operation, if performed even as soon as the diagnosis is established by the onset of a circumscribed peritonitis, is an absolutely safe operation. To this, however, I shall recur.

Let us first consider the reasons for objecting to my rule.

(1) There is still in the minds of many a confusion of the disease appendicitis and of its sequelæ. The pathologists have taught us that perityphlitic abscesses are usually caused by appendicitis. This should influence the treatment of appendicitis only by making us more zealous to prevent a perityphlitic abscess, by removing its cause. Few practitioners have yet recognized this logical necessity. And it is still commonly held that the treatment of these entirely different conditions should be the same. Why? Because, forsooth, the abscess is the result of the appendicitis. More sensible would it be to declaim against the excision of a diseased Fallopian

tube because its probable sequel, a pelvic abscess, can occasionally be best drained *per vaginam*; for in this case even the sloughing of the tube does not directly threaten a vital organ, whereas the sloughing of the appendix threatens the integrity of the intestine.

But even admitting, for the sole sake of routing the Fabians, that the treatment of the two conditions should be the same, even so they have no sufficient reason for delaying the use of the knife. It is true that in cases of distinctly localized perityphlitic abscess there is much less danger of diffuse peritonitis ensuing than there is in cases of appendicitis proper. There is, therefore, less danger in delaying surgical interference. But it is a mistake to suppose, as many surgeons persist in supposing, that there is any safety in thus delaying. The abscess may become attached to the abdominal wall, and its foul contents may, indeed, burrow through it; but the chances are greater that, if not originally so attached, it will never be so. And while the surgeon is waiting in the hope of a shorter cut, the pus is very likely to make one of its own, not at all to the surgeon's liking.

Moreover, even if unattached to the abdominal wall, a perityphlitic abscess presents no great difficulty to a moderately skilful operator. After incising the abdominal wall and packing protective sponges or gauze around the abscess, it can be evacuated without infecting the general abdominal cavity. And then, if the operator is content to let the sloughing tissues come away of their own accord,

simply packing the cavity with gauze and *not* undoing his good work by sewing up the abdominal wound, then the patient will do surprisingly well.

Here, for example, is a case of this kind—one of three in which I have operated during the past month, all of which have done equally well.

PERITYPHLITIC ABSCESS, UNATTACHED TO THE ABDOMINAL WALL.—OPERATION.—RECOVERY.

Miss M., a saleswoman, 21 years old, of slender build, but strong and healthy, thought she "took cold" the morning of April 7, 1892. She had been wrestling with her sister, and sat for some time afterwards outdoors, till quite chilled. She ate no dinner that day, and complained of fatigue and of pain in her *left* side. She gave out at her work the next day, but the day after she resumed her place at the counter, though still suffering pain, especially after body-motion. She took salts, as was her habit, and secured a thorough evacuation of the bowels. I first saw her at 9 P. M., April 13, the sixth day after the first attack of pain. She complained of pain in the left side above the waist, but on close questioning she referred the pain also to the right hypochondriac region. There was slight tenderness in the right iliac fossa, where a small lump could be felt. Her temperature was 101°, her pulse 100. Poultices were ordered. The next morning at 9 o'clock her temperature was 99°, pulse 84. The tumor had increased slightly in size toward the median line. It was not very tender, but was dull to percussion and well defined.

Operation.—An incision two inches long was made through the thin abdominal wall, directly over the tumor. The peritoneum was found to be normal. A mass the size of a hen's egg presented, at the lower end of which the root of the appendix could be felt. Sponges were packed toward the median line. In searching with the finger for the most vulnerable point in the mass, the abscess cavity was opened, allowing the escape of foul pus. After washing out the cavity it was packed with iodoform gauze. Recovery was rapid and uneventful. The next day and thereafter her temperature was normal. In two weeks she was sitting up nearly all day, although the abdominal wound had not entirely healed, its edges being drawn together with lacings, passed between belaying pins, which were fastened to the abdominal walls by adhesive plaster.

Now there is nothing remarkable about this case, nor will there usually be in similar cases if treated surgically. There was no pressing need for the operation, and perhaps she would have recovered without it. But I was too timid to take the responsibility of the risk that there always is in delaying to evacuate an internal abscess; and a cake in the right iliac fossa, tender to pressure, in a patient even slightly feverish, means an abscess. As for the risk attending the operation, that counts for nothing, for it is less than the risk there is in waiting Micawber-like. I maintain, therefore, that the proper treatment of a perityphlitic abscess is its immediate evacuation by means of the knife. But whatever opinion is held about the treatment of this

complication or result, such opinion has no proper place in discussing the treatment of appendicitis itself.

2. Another objection to my rule of operating, as soon as ever the diagnosis of appendicitis is made, is founded upon the inexperience of the most eminent surgeons with the very beginning of the disease. Never having had the opportunity to operate at the proper time, they naturally hesitate to adopt the experience, however favorable it may have been, of those who have had such opportunities.

3. Then there is the objection, founded upon the common experience, of having the patients die who were moribund at the time of the operation. Such cases still enter the statistics, accredited not where they belong—to the almost criminal folly of the Fabians, but to the luckless surgeon who was, perhaps, summoned only when the patient's pulse could not be counted at the wrist.

4. Finally, the objection is made to my rule that to be bound by it one must disregard the many mild cases of appendicitis that do very well if left alone, or if treated medically. This is the only objection worthy of serious consideration. It involves the fundamental question of the diagnosis of the disease. I do not maintain the duty of operating in cases of *suspected* appendicitis. I am constantly seeing such cases, and I suppose every general practitioner nowadays is suspecting appendicitis many more times than he actually finds it. Indeed, this must be so, if he employs the eliminative method of diagnosis. In many of these cases where an appendicitis is a pos-

sibility, it may be impossible to exclude it. It may be true that I ought, in my list of cases of appendicitis, to include many of these bellyaches, where I could not be sure that there was not some catarrhal inflammation of the appendicular mucous lining, or some rheumatism of the muscular walls. However misleadingly I may have omitted such cases, my ignorance must excuse the omission. I can only assert that never, since my own recovery from the disease, after a late operation four years ago, have I failed where the responsibility rested upon me, to follow the rule herein maintained of operating as soon as ever the diagnosis is made.

In order to establish the rightfulness of the rule it is necessary, as was stated above, to show the absolute safety of the operation. This can be done only by the slow accumulation of the reported experience of those who follow the rule. Cases where the operation is for any reason delayed after the diagnosis is made, must not, in this connection, be considered; and, therefore, there are as yet only a comparatively few cases for our consideration; but so far as I have been able to discover, no case has yet been reported where the immediate operation has resulted badly ,either as regards the recovery of the patient, or as regards any unfortunate after effects. Nor have I found any case reported where the operator failed to find full justification for operating in the threatening condition of the appendix. Whereas, in many of the cases, where outwardly there was little evidence of the necessity for surgical interference, the internal conditions were found to

be such as were certain to have caused dire results to the patient if not death itself. I have myself been able to report such cases, where I succeeded in amputating the gangrenous appendix before it became perforated and before there was a drop of pus in its neighborhood; where there was no surrounding abscess wall to exclude from the general abdominal cavity the fearfully foul discharge that soon would have occurred through the rapidly dissolving wall of the appendix; but, instead, only cobweb-like adhesions between coils of intestines in the neighborhood.

No one who has ever operated in such a case—after experiencing the ease with which the offending organ can be found, brought up through the abdominal incision, and there excised—would hesitate in choosing the earliest possible occasion for operating, so far as his own convenience and the safety of the operation is concerned.

The first case, so far as I am aware, in which this early operation was done was briefly reported by my colleague, Dr. E. R. Cutler, to the Boston Society for Medical Observation, January 7, 1889, and published in the *Boston Medical and Surgical Journal* for June 6, 1889.

The diagnosis in that case was made from the presence of pain and tenderness in the right inguinal region, accompanied with fever. There was no resistance to pressure, or dullness on percussion. The operation was performed at the end of forty-eight hours. The gangrenous appendix was easily found. There was no pus in its neighborhood. It was amputated, and the patient made a perfect and

speedy recovery. He left the hospital and journeyed by railroad twenty miles to his home, on the fourteenth day after the operation, and has since been a perfectly well man.

The appendix in this case had already become perforated, probably, although in manipulating it into view its thinned, friable walls may first have suffered perforation.

The brilliant result in this case had great influence in determining the treatment of our subsequent cases. Of the twenty-one cases I have since had the honor to report, in eight cases the appendix was amputated before it had perforated. In four other cases where the appendix was removed it was found to be perforated. In only one of these cases was there a fatal result, and in that case (June, 1889) operation, though strenuously urged, was not allowed by the patient's family until after several days' delay. Such a case should not be considered in discussing the advantages of immediate operation. In a similar case I should not now consent to share with the family the responsibility of delay.

SUMMARY

(1) Appendicitis is an inflammation of a useless organ, dangerously situated.

(2) At the beginning of an attack it is not possible to determine whether it will prove of the harmless or of the dangerous kind.

(3) The diagnosis is easy in comparison with the task of diagnosticating the seat of any other acute inflammation.

(4) At the beginning of an attack, the excision of the appendix is an easy and a perfectly safe operation.

(5) If so treated, all complications and all subsequent attacks are avoided.

(6) In view of the results already obtained by following this treatment, no other treatment is worthy of consideration.

CASES OF APPENDICITIS, WITH REMARKS UPON THE TREATMENT

1892

"We are asked how it is that we have so many cases in Waltham. Perhaps it is that we do not have to sign our death certificates as peritonitis."

CASES OF APPENDICITIS, WITH REMARKS UPON THE TREATMENT

The deplorable variance of opinion that exists as to the treatment of appendicitis is undoubtedly largely due to the confusion of the disease itself with its sequelæ. In reporting cases and in discussing the treatment, it is high time that a distinction should be made between these very different pathological conditions. For it by no means follows the fact of causative sequence, so brilliantly taught us by Professor Fitz, that the treatment of appendicitis and of perityphlitic abscesses and general peritonitis is one and the same. The discoveries of the pathologists, however, do impose upon us the obligation to bear in mind the probable sequelæ when considering the treatment of the *fons et origo mali*.

In reporting my cases to-night, I shall make this distinction, and I begin with the cases of perityphlitic abscess. Fortunately, the profession is fairly well agreed as to the treatment of this disease. Few physicians nowadays hesitate to send for a surgeon when either the abscess or the patient himself is plainly pointing skywards. And although the operation is still not seldom merely an ante-mortem examination, nevertheless even this is a distinct advance upon the former practice of evacuating such abscesses only at the autopsy. The mortality in these cases is rapidly diminishing, thanks both to the increasing timidity of surgeons to delay

evacuating the abscess, and to the improvement in the manner of operating.

There are two kinds of perityphlitic abscess, one where the abscess is attached to the anterior abdominal wall, the second where it is not so attached. And although the former is vastly the safer condition, and also secondary in point of time, yet it does not seem worth while to wait for its development. For in many cases such attachment can never occur, and after all it is not possible before operating to determine which condition obtains. Moreover, the unattached abscess is just as likely to burst into the abdominal cavity or into some viscus favored by a prior attachment.

And in the cases where the peritoneal cavity must be traversed in order to evacuate the abscess, if sponges or sterilized gauze is first packed around it and the abdominal walls firmly pressed down by the assistant's hands while evacuating and washing out the abscess cavity, then there is a good chance of not infecting the peritoneal cavity. And even if this disaster occurs it is astonishing how tolerant the peritoneum then is of pus which, were the abdominal walls intact, would occasion its frightful inflammation.

The main danger is not of infection of the peritoneal cavity but of insufficient drainage. Drainage tubes are almost worthless in these cases. For thin fluids they do very well, but for thick, foul pus they must be supplemented by plenty of aseptic gauze carried well down alongside the tubes into the abscess cavity.

A second danger is that of infecting the abdominal walls. This can be obviated by *not* using sutures. Indeed, it is extraordinary how pernicious is the force of the old-time fear of opening the belly. Many a patient has been sacrificed after an otherwise good operation by the close suturing of the abdominal wound.

Instead of sutures, if there is need of drawing the edges of the wound together, lacings should be used, running them from belaying pins fastened by adhesive plaster to the skin at some distance from the edges of the wound.

I must pass over the after-treatment of these cases, for important as it is it is exactly the same as in all cases of laparotomy where the main danger is of general peritonitis. I have therefore made little of it in the following reports, giving greatest prominence to the history of the cases, and the conditions at the time of operating. But I want to emphasize the great usefulness of the saline treatment, both by mouth and by rectum.

CASE I. *Perityphlitic Abscess, attached to abdominal walls; Operation; Recovery.*

A. G., a strong, laboring man, twenty-one years old, after strain caused by heavy lifting, was seized with pain in umbilical region, May 31, 1891. Morphia was given. Two days afterwards the pain was no less; the abdominal walls were rigid; there was slight tympanites and tenderness to pressure. Vomiting bile. Temperature 101.2°, pulse 94.

June 3d. Fever and pain less. Bowels moved under stimulus of salts.

June 4th. Very comfortable, but dulness on percussion in right iliac region. Temperature 101°.

June 5th. Tumor now apparent.

Operation by Dr. H. A. Wood. Incision over tumor in right linea semilunaris. On opening the peritoneum, foul pus escaped. The abscess cavity extended from head of colon well up into the flank. It was thoroughly washed out with boiled water, and a rubber drainage-tube carried into it. For ten days there was free discharge of offensive pus from the wound, and there was considerable fever, due probably to a slight broncho-pneumonia. His convalescence was thenceforth rapid. Three weeks after the operation he was walking about.

Case II. *Perityphlitic Abscess, attached to abdominal walls; Operation; Recovery.*

I. S., watchmaker, thirty-six years old, had had three previous and similar attacks.

July 27, 1890. He felt an uneasiness in abdomen and nausea all day, general abdominal pain and vomiting that evening. The next day his attending physician found him still suffering and vomiting. The belly was slightly distended and everywhere somewhat tender to pressure. Temperature 100.8°.

July 29th. He was better of the pain, but not of the soreness.

July 30th. Patient having been removed to the hospital, came under my care. Temperature, morning, 99.2°; evening, 100.° There was then slight

distention of the belly, moderate tenderness and dulness in right iliac fossa and lumbar region.

July 31st. Condition same.

August 1st. Still comfortable, but the dulness and resistance to pressure in right iliac region and the general distension increased.

August 2d. During night for the first time suffering pain in above noted region. Temperature 99.6°. But after a very comfortable day, his temperature at 5 p. m., was 99°, pulse 90. In spite of his very favorable condition, I decided to operate. The abdominal wall was incised for two inches in a line parallel to Poupart's ligament; one inch removed. The muscles were œdematous, the peritoneum was tough and thickened. On opening it, foul pus escaped. The gangrenous tip of the appendix presented, but as the main portion of the appendix was firmly adherent to the wall of the abscess cavity, it was not deemed prudent to attempt its removal. After washing out the abscess cavity, a rubber drainage-tube was left in it.

Recovery from anæsthesia without even nausea. For several days the discharge from wound was very foul, containing fæcal concretions. On the fifth day after the operation the sloughing appendix was discharged from the wound. The offensive discharge continued for two weeks. Then became inoffensive and gradually diminished.

Discharged from the hospital August 30th, able to walk about. Perfect recovery.

CASE III. *Perityphlitic Abscess, attached to abdominal walls; Operation; Recovery.*

W. J. K., a school-boy ten years old, walked into my office the evening of March 25, 1892. He complained of pain in right abdomen, and he could not stand up straight. In the right iliac region there was a hard tumor the size of a small fist. The history of the case was rather indefinite, but the trouble was certainly of three weeks' standing. He was at once taken to the hospital and operated upon that night.

A short incision was made over the tumor, parallel to Poupart's ligament. The peritoneum was very thick and tough; on cutting through it, several ounces of thick pus escaped. The abscess cavity was strictly defined; on its iliac side was a sloughing mass resembling the appendix, but it could not be easily removed. The cavity was washed out with boiled water and packed with iodoform gauze.

His recovery has been rapid and steady, in spite of an inexplicable epididymitis.

CASE IV. *Perityphlitic Abscess, attached to abdominal wall; Operation; Recovery.*

M. K., a slender school girl, fifteen years old, for three years previously had been subject to occasional agonizing attacks of abdominal pain in umbilical region. During the last year the attacks had been more frequent, at intervals of a few weeks at most. For the week previous to the sickness here described she had been very miserable, hardly able to drag herself about.

On December 25, 1890, she was seized with intense pain in lower abdomen. She was menstruating. There was no fever. Hot fomentations were applied and morphine given by a physician summoned in my absence. The next day the pain was localized in the right side, where there was also tenderness. The temperature was 101°. Unsuccessful efforts were made to move the bowels by Rochelle salts and enemata.

December 27th. Pain less, but besides the tenderness in right iliac fossa, there was dulness next the ilium. She had to be catheterized. Temperature 102°, pulse 110.

December 28th. Tumor now discoverable in right iliac fossa. At 11 a. m., temperature 102.8°, pulse 115. At 4.30 p. m. temperature 103.8°, pulse 109. Frequent cramp in right leg. Otherwise little pain. Passed urine naturally.

December 29th. After a comfortable night, she had a fairly comfortable day. Her appetite came back; under influence of four Rochelle powders and enemata her bowels were well cleared. Temperature, morning 101.8°; evening 102.8°.

I first saw her on the fifth day, December 30th. Her temperature at 7.30 a. m. was 102.4°. She was still menstruating. She was apparently in very comfortable condition, sleeping a good deal. There was a well-marked tumor low down in the right iliac fossa, exquisitely tender to pressure. She was immediately operated upon. The incision, two and one-half inches above, opened directly into abscess. Foul pus washed out, rubber drainage-tube inserted.

Recovered well from anæsthesia. There was a copious discharge of foul pus for a week, but after several little fæcal masses were washed out, the discharge became less, and inoffensive. Drainage-tube removed on the 18th day; wound healed and patient walking about at end of fifth week. Recovery apparently perfect. But during the following year there have been two small abscesses in same place, both opened as soon as discovered, and neither one disabling her for more than a few days.

Case V. *Perityphlitic Abscess, unattached; Operation; Recovery.*

C. C. D., schoolmaster, thirty-five years old, a very strong man, was taken sick October 19, 1891. He had previously suffered from occasional attacks of abdominal pain. This time he thought his vomiting and distress due to his having eaten stewed barberries the day before. Dr. G. E. Titcomb, of Concord, found him the afternoon of October 22d somewhat under the influence of morphia, but suffering pain in abdomen. He was vomiting occasionally. Micturition was difficult. Temperature 100.2°, pulse 85. Abdomen tender in right iliac region.

The next day the area of sensitiveness to pressure was less, but there was distinct hardness in same region. Vomiting continued. Temperature 99.2°, pulse 75. Operation urged, but question postponed.

I was summoned at 5.30 p. m., October 24th, by Dr. Titcomb, to whose kindness I am indebted for

the preceding history and for his equal share in caring for the patient subsequently.

I found the patient's temperature 99.5°, pulse 88. There was a distinct tumor size of a large fist, in the right iliac region. It was sharply defined and exquisitely tender. There was also slight general abdominal distention and tenderness. An incision three inches long was at once made in the right linea semilunaris.

The sub-peritoneal tissues were very vascular. On incising the peritoneum several ounces of foul pus escaped. There was no distinct abscess cavity, but a mass of necrotic tissue, which as it could not be easily got out, was left *in situ.* Five rubber drainage tubes were inserted in different directions, and iodoform gauze then packed well down between the tubes into the iliac fossa, thus forming a cess-pool for the collection of the drainage. This scheme worked well, and I hope I shall never forget to employ it in a similar case.

The next day his temperature was 100.2°, pulse 92. He was given by mouth one ounce of sulphate of magnesia, and by rectum one ounce of glycerine, half an ounce of spirits of terebinth, two ounces of sulphate of magnesia, and two ounces of water. This was repeated in one hour, and followed by large discharges of gas and fæces.

His recovery was thenceforward steady, but not very rapid. He was, however, able to resume his profession after two months.

Case VI. *Perityphlitic Abscess, unattached; Operation; Recovery.*

P. A. R., a school-boy, eight years old, brought to hospital September 5, 1890. Two weeks previously vomited bile all day. After that he complained constantly of pain in right lumbar region and in front of thigh. He stooped and walked lame. He was for some time feverish. His temperature the day before entrance was 100.2° in the morning in the evening 102.2°. There was dulness, tenderness, and a sense of resistance to pressure in right lumbar region.

September 6. No change in condition, and no urgency of symptoms. Nevertheless, there being no doubt as to diagnosis, he was operated upon. Vertical incision two inches long above crest of ilium, just over point of greatest resistance to pressure. A mass the size of a hen's egg presented. Sponges were packed around it and the abdominal wall pressed down upon the sponges so that when the mass was pried open by my finger the very foul pus did not flow into abdominal cavity. Washed out. Two rubber drainage-tubes inserted. Recovered from anæsthesia well. Free pus discharge for some time, and stitch-hole abscesses. Went home in two weeks. Recovery perfect.

Case VII. *Perityphlitic Abscess, unattached; Operation; Recovery.*

L. M., a strong healthy farmer, seventy-six years old, the evening of March 27, 1892, was seized with a chill, and colic pain in right side. The next day

after a cathartic, his bowels moved twice. The pain continued. At 1 p. m., March 29, Dr. G. E. Titcomb, of Concord, found him still suffering. His temperature was 101°, pulse 72. There was tenderness in right iliac region. At 5 p. m., March 30th, temperature 100.8°, pulse 84. At 11 p. m. I saw him in consultation with Dr. Titcomb. His temperature was then 99.4°, pulse 68. The pain had decidedly diminished. But in the right iliac fossa there was a lump very sensitive to pressure. He could rest only while lying flat on his back. His bowels were moving well. His stomach was in perfect condition. There was no question that he had a perityphlitic abscess.

For two days he remained in about the same condition. On April 3d, the seventh day of his sickness, his temperature was 99.4°, pulse 76. The tumor, although less tender to pressure, was a trifle more prominent. Operation was advised and agreed upon.

Incision two and one-half inches in right linea semilunaris directly over the tumor, which was below the McBurney point. Turbid bloody fluid escaped on opening the peritoneal cavity. The peritoneal surface of the small intestine which presented was highly injected. The tumor was found to be a matted mass at the brim of the pelvis. In examining with the finger I unfortunately burst into it, before I could surround it with packing, not preventing the escape of foul pus into the abdominal cavity. The abscess cavity and afterwards the abdominal cavity were then thoroughly washed out

with boiled water. The abscess cavity was packed with iodoform gauze around a rubber drainage-tube.

He recovered from the ether well. There has since then been no trouble whatever. Foul pus is discharging from the wound, and although early to say so, his convalescence seems assured.

So much for the subject of perityphlitic abscess. I now pass to the consideration of appendicitis proper.

The disease is not uncommon in this part of the world. It is easily diagnosticated. As its name implies, it is an inflammation of a perfectly worthless organ, which is very prone to become gangrenous in Nature's efforts to rid the body of it. Unfortunately there are terrible dangers attending this natural process. In the first place, as the appendix perforates or sloughs off from the cæcum, there is a sacrifice of the gut's integrity: its foul contents can then leak out into the very depths of the abdominal cavity. Or, again, by extension of the gangrenous process, vital organs are liable to be invaded; the peritoneum itself being especially liable to this contamination.

If, in the pus resulting from this gangrene, or escaping from the appendix, there is present only the staphylococcus, then the course of the disease and of its sequelæ may not prove unmanageable. But if, on the other hand, as is just as likely to be the case, the streptococcus pyogenes aureus is present, then the case is fulminant, and in the opinion of most authorities is hopeless; it is certain-

ly so if left to Nature's care, or in the hands of a physician bold enough to temporize.

The proper treatment of appendicitis is perfectly plain. The organ itself must be excised at the outset, before it perforates or any complication arises. This can be easily and safely done. There are then no adhesions to blockade the search for the appendix. And when found, it can easily be brought to view and into easy reach. It is a simple matter to amputate it and to invert the stump by suturing together its peritoneal surfaces. That is the whole of it. The patient will be soon perfectly well and will never have another attack of appendicitis.

The responsibility for any unfavorable termination, provided he is summoned at the outset, rests upon the medical attendant.

In these cases the physician's duty is glaringly plain: it is to summon a surgeon. The surgeon's duty is equally plain: it is to use the knife as soon as ever he is assured of the correctness of the diagnosis. And when surgeons recognize their duty physicians will doubtless be more ready than they are now to recognize theirs.

CASE VIII. *Appendicitis; General Purulent Peritonitis; Operation; Recovery.*

D. M., a strong tinsmith, twenty-four years old, had some pain in the belly on the evening of September 7, 1890. The next morning the pain was worse. Took a cathartic, and had several dejections. He was up and about all day, and in the evening of September 8th came to Dr. Wood's office. He con-

plained of constant pain in the hypogastric region. No tenderness on pressure. Temperature 99.5°, pulse 100. At 4 a. m., September 9th, Dr. Wood found the man complaining of ineffectual desire to empty his bladder, but by catheter only two drachms of urine were obtained. During the night one and one-fifth grains of morphine were given by the mouth. At 11 a. m. the temperature was 101.4°, pulse 96. Pain less; but tenderness and resistance to pressure in hypogastrium. No pain or tenderness in the right iliac fossa. At 4 p. m., temperature 101.4°, pulse 102. Pain in middle and extending up left side. Great tenderness to pressure, especially in median line.

He was then removed to the hospital. At 8 p. m., (twenty-four hours after his visit to Dr. Wood's office, and forty-eight hours after his first pain), his temperature was 102°, pulse 106. Belly walls rigid and distended. Severer pain, extending especially upwards to the left. No dulness on percussion. By rectum, the pelvic floor was found to be exquisitely tender, but not bulging or fluctuating.

Operation by Dr. H. A. Wood. Incision three inches well down in median line. Considerable sero-purulent fluid escaped from peritoneum. Appendix found dipping down into the pelvis, adherent to its posterior wall. A second opening was then made in the right abdominal wall, two inches long, parallel to Poupart's ligament, through which the appendix was removed with considerable difficulty. It was four and one-half inches long, with the outer three-quarters gangrenous, but not perforated. It was

amputated half an inch from cæcum, above a catgut ligature. Considerable thick pus was washed out of pelvis, and the whole abdomen thoroughly flushed with boiled water. A rubber drainage-tube was carried down into pelvis through the side wound.

Patient recovered well from operation. His temperature the next day was 99.2°, and afterwards normal. His convalescence was uninterrupted.

CASE IX. *Appendicitis; General Purulent Peritonitis; Operation; Death.*

W. A. B., a lawyer, thirty-five years old. Seen in consultation with Dr. George A. Oviatt, of Sudbury, to whose kindness I am indebted for the history of the case previous to my visit.

The patient had been a very robust and healthy man. On the night of August 25, 1890, had a slight chill and some pain in umbilical region. The next day pain more severe, and located in right iliac region.

He was first seen by Dr. Oviatt, August 27th, at noon. His countenance was pale and anxious, temperature 100°, pulse 96. Some tenderness over lower abdomen, especially in right iliac region. No tumor. He was given a compound cathartic pill. That night he was seized with dreadful pain, tearing in character, in the right abdomen. He walked the floor in his agony.

The next morning his countenance was drawn; forehead moist; pulse 110 and weaker; temperature 102.5°. The abdomen was more tender, more distended. Frequent eructations of gas. Operation

was then advised. At 4.30 p. m., his pulse was small and weak, temperature 96°. He was in a profuse, cold sweat. He vomited every few minutes, a dark-brown liquid, the odor of which was only slightly fæcal. Operation assented to. Meanwhile, brandy enemata were given every half-hour.

I saw the patient at 10 o'clock that night. His pulse could not be counted at the wrist; his arms and legs were cold; but, though suffering agony, his mind was supernaturally clear. I told him he was dying. He insisted upon knowing just what was the trouble. He begged for an operation. I finally consented to open the distended abdomen and flush it with hot water. This gave him relief. For a while his pulse was better. He died three hours after. On incising the abdominal wall, I found just what would be expected, — a sloughing appendix, and stinking pus free in the abdominal cavity.

Case X. *Appendicitis; Operation; Recovery.*

L. S., a school-boy, six years old, for previous two years had had occasional "bilious spells," characterized by vomiting and fever, and lasting for several days. These attacks have been of increasing frequency, two having occurred within the six weeks previous to the attack here recorded.

In the forenoon of August 10, 1890, he complained bitterly of pain in the right side of the abdomen. He vomited occasionally through the day and following night. He was feverish; slept little; refused food.

I first saw him at 8 p. m., August 11th. He was

then occasionally crying with pain, which he referred definitely to the right iliac region. The abdomen was rigid, but not tender on pressure except in the right iliac region, where there was also dulness on percussion. Temperature 102°, pulse 120. Operation was urged, but not assented to until noon the next day, fifty hours from time of seizure. His condition then was about the same; his fever, indeed, somewhat less. Temperature 101°, pulse 110.

An incision was then made, two and one-half inches long parallel to the crest of the ilium, one and one-half inches removed. The peritoneum was adherent to cæcum and colon. After dissecting through adhesions with my finger, I found the appendix lying under the cæcum and firmly adherent thereto. It was gangrenous, judging from the feel of it, and contained several concretions. As only its tip could be loosened from the bed of adhesions, it was left *in situ,* with a perforated rubber-tube alongside of it.

After a comfortable night his temperature the next day was 99°, and quite normal after the second day. Considerable sero-sanguinous discharge from wound. There was no pus found at the time of the operation, nor until the third day thereafter, when a small amount of highly offensive pus was discharged. For several days afterwards this discharge was very free, and on the sixth day after the operation, a fæcal concretion, the size of a large nut, came away. During these days of the foul purulent discharge, the boy was perfectly comfortable, and

had a fine appetite. In three weeks he was well, and has since continued so.

CASE XI. *Appendicitis; General Purulent Peritonitis; Operation; Recovery.*

F. L., salesman, twenty-one years old, had had many previous attacks of colicky pain accompanied by vomiting and diarrhœa, but suffered a more severe attack the night of January 30, 1892.

At 4 a. m., January 31st, Dr. Wood found him suffering acute pain in the umbilical region. His temperature was 98°. One-third of a grain of sulphate of morphia was given hypodermically. At 1 p. m., the pain was relieved, but there was slight tenderness to the right of the umbilicus. In the evening the pain had returned. Temperature 99.5°, pulse 95. Morphia again given — one grain in the course of the night. At 9 a. m., February 1st, difficult and painful micturition. Increased pain and tenderness located along the border of the right rectus. No dulness nor tumor. Increasing rigidity and distention of abdomen. Temperature 98°, pulse 108.

Removed to hospital at noon. At 4 p. m. (forty-four hours from seizure), temperature 101.6°, pulse 120. Distention increased. Pain and tenderness more distinctly localized in right iliac fossa.

Operation by Dr. H. A. Wood. Incision in right linea semilunaris, of two inches. Purulent fluid escaped from peritoneal cavity. Slight adhesions between coils of intestines. The appendix, two inches long, sloughing and perforated near its base, was carefully brought to the surface and amputated

above a catgut ligature. Abdominal cavity thoroughly washed out with boiled water. Glass drainage-tube laid to bottom of pelvis.

The patient stood the operation well, and made an uneventful recovery, returning to his home in three weeks.

CASE XII. *Appendicitis; Excision of the Appendix; Recovery.*

G. A. R., a watch-factory girl, twenty-one years old, had been very well till a year ago, when she had an attack of severe abdominal pain lasting several days. Two months after, and again in four months, she had similar attacks. Since the last attack she has not been able to bend her body without pain.

On January 6, 1891, she was as well as usual till 4.30 p. m., when she was seized with a sharp pain in the belly. But she kept at her work-bench till evening, and then went on a long sleigh-ride. At 3 o'clock the next morning the pain increased. In the afternoon she had a chill, and suffered severe abdominal pain. Dr. W. S. Hoyt was summoned. He found tenderness in the right iliac region. Temperature 99.5°, pulse 100. At 5 a. m., January 7th, she was suffering, in spite of one grain of morphine given during the night. Temperature 100.5°, pulse 118.

I first saw the patient at 10.30 a. m. Her temperature was then 100.6°, pulse 112. Face flushed and anxious. Complaining bitterly of pain in right abdomen. The abdomen was somewhat rigid and tender to pressure, more marked on the right side.

No dulness. Nothing abnormal found per vaginam or per rectum. She was moved to the hospital.

Operation at 4 p. m., forty-eight hours from initial symptoms. When fully under ether, the abdominal walls were just as rigid as before, and it was possible to find only an indefinite resistance in the right iliac region. Incision three inches, in right linea semilunaris. On cutting through the toughened peritoneum, a small amount of turbid serum escaped. The cæcum presented. Towards the median line all was free and normal, but on the outer side of the cæcum were delicate adhesions which easily gave way to the examining finger, allowing the easy discovery of the appendix, lying under and to the outside of the cæcum, firmly attached thereto, and bathed in foul pus. By rotating the cæcum the appendix was brought up out of the abdomen. The mesentery of the appendix having been ligatured and cut free, the distal half of the appendix was amputated, the stump inverted and its peritoneal surface brought together with Lembert sutures. Abdomen washed out with boiled water. A rubber drainage-tube left in iliac fossa. Wound sutured with silk-worm gut.

Her recovery was interrupted by sloughing walls of wound, by prolonged nausea, and the necessary catheterizing, and, worst of all, by a phlebitis in the left leg; so that it was a full month before she was up and about. Six weeks after the operation she was discharged from the hospital fully recovered. She has since then been perfectly well.

Dr. W. F. Whitney, who kindly examined the removed appendix, reported its condition as follows:

"A portion of the appendix cæci, five and a half centimetres long, with a perforation with ragged edges, two and a half centimetres from tip. No concretion found Microscope examination showed mucous membrane ulcerated and extensive round-cell infiltration through the entire thickness to the peritoneal surface near the perforation. This infiltration gradually diminished to the point of removal; but even there there was thickening and hæmorrhage."

In making this report, it is proper to state that besides these cases, I have seen in consultation several others where no operation was performed. But, excepting one case seen in consultation with Drs. Adams and Wilkin of Framingham, where the patient was dying of general peritonitis, I have myself never dared to assume the responsibility of treating the disease otherwise than as herein recommended.

I am well aware that my experience is small in comparison with that of many others. I am also well aware that these reports do not exactly resemble the ideal operation; but, in connection with the reports previously made by my colleague, Dr. E. R. Cutler, and myself, I trust that sufficient foundation is established for our claim that the only proper treatment of appendicitis is the immediate excision of the appendix.

APPENDICITIS

1893

"Now, if any of us have operated so far in a case where there was no appendicitis, or where any injury resulted from the operation, then I admit we stand properly impeached."

APPENDICITIS

One of the great disappointments of this age is the failure of the medical profession to make practical use of the brilliant discoveries of the pathologists. In some directions the general practitioner is not in the least responsible for this failure. Thus, in the matter of tubercular diseases, we can only stand with the laity anxiously awaiting the discovery of some method of treatment that will not dash our high hopes. But in other directions the general practitioner is responsible for not giving to his patients the benefits that logically belong to the recent discoveries in the natural history of certain diseases.

Nowhere else is this fault of the profession more glaring than it is in the treatment of appendicitis. In this paper I purpose to expose this fault and to urge the adoption of treatment based upon facts and reason.

The appendix cæci vermiformis, as its name signifies, is a blind tag-end of the large intestine. So far as is known, it is as useless as the nipples on a male breast. Very probably its proneness to decay is due in part to its uselessness, in obedience to natural law; but this liability to decay is also largely due to its exposed situation as regards bacterial infection. The alimentary canal teems with potential germs of disease which, although geometrically inside, are yet in reality as outside the body as if held in the closed fist. Indeed, our health and even our life depends upon the integrity

of the gut in preventing the admission into the body of these deadly bacteria.

There is, however, a still stronger reason for the frequent inflammations of the appendix to be found in the study of its anatomical structure, which like that of the tonsil is largely lymphatic and absorptive. Its poor mucous lining cannot even lubricate itself against the accumulation in its cavity of foul material This fæcal matter becoming inspissated naturally causes irritation and ulceration. If sharp-angled seeds or other foreign bodies are also present, and if the opening of the appendix into the cæcum is blockaded with hard fæces, such conditions would, of course, favor the ulcerative destruction of the mucous membrane.

What form of inflammation follows will then depend upon the kind of disease germs thus admitted into the structure of the appendix. A frequent result is an absolute interference with the blood-supply of that portion of the organ beyond the original seat of inflammation. Whether this interference be mechanical, from pressure, or whether from closure of the vessels by septic thrombi, the result is equally disastrous. There is then no escape for the outer portion of the appendix. Gangrene and sloughing must ensue. Often, however, the inflammation of the walls of the appendix is not completely annular, but more strictly localized, in which case a perforating ulcer may result without complete gangrene of the distal portion of the organ.

There also occurs more or less frequently a catar-

rhal inflammation, as it is called, which does not necessarily involve the destruction of any portion of the appendix. It is this variety which so often recurs, and so often precedes the destructive attack. But even this mild form is not so harmless as many would have us believe, for it is apt to cause a neighboring adhesive peritonitis which renders the proper surgical treatment much more difficult when later that becomes imperative. It is also the probable cause of the various deformities of the appendix, which are considered by some to be responsible for the occasional attacks of pain. However that may be, at any rate it is certain that the normal appendix is perfectly flaccid and may comfortably lie in any bent and crooked position. Only when the walls are thickened and stiffened by previous inflammations can any bend of the organ obstruct its lumen and thus cause appendicular colic.

These different varieties or stages of appendicitis may be distinguished by the eye, aided perhaps by the microscope, but not by abdominal palpation nor even by the rectal touch.

Were the appendix within easier reach, its various inflammations could, of course, be more accurately tabulated. It might then, perhaps, be possible for two or more authorities to agree upon the number of distinct varieties; and there might then be some foundation for those who pretend even now to diagnosticate the "mild catarrhal" from the "possibly fulminant" variety. But on the other hand, were the useless little organ within easy reach, whenever inflamed it would probably be snipped off and

sent to the nearest pathological laboratory for culture-test examination, whereby alone may be obtained a certain diagnosis as to the character of the inflammation. For there can no longer be any doubt that the different forms of purulent inflammation are due to the presence in affected tissues and in serous cavities of the different species of pyogenic micrococci. Thus if the inflammation be caused by the staphylococcus pyogenes albus, it may be expected to be of a mild character. And even if the inflammation involves the outer wall, thus allowing a migration of the micrococci into the peritoneal cavity, there may still be spontaneous recovery from the peritonitis. But if, on the other hand, it is the streptococcus pyogenes that has invaded the walls, then there is no escape from a gangrenous appendix, which unless immediately removed will surely cause a fatal peritonitis.

Again, although the local ulcer that causes the perforation may itself be due to a comparatively harmless micrococcus, the cæcum and the appendix may nevertheless contain the most virulent species, which after the perforation may thus freely enter the abdominal cavity.

It is, therefore, most unfortunate for those who believe in temporizing that even the normal appendix is not within the field of easy observation. Indeed, owing to its obscure position it has only lately received even obituary consideration. Moreover, after it is inflamed, owing to the speedy yet consequent inflammation of the neighboring peritoneal surfaces, the appendix becomes more and more

removed from the examiner's hands. Thus the difficulties of diagnosis increase with the progress of the disease.

Fortunately, in the early stages of its inflammation, it is not very difficult to discover the simple fact that it is inflamed. But that is all.

The disease itself would be of comparatively little consequence were it not for its after-effects. Indeed, it is usually recognized only by its frightful sequelæ, which nowadays with disgraceful inaccuracy are generally described as varieties of appendicitis.

The principal harm resulting from the disease is due to the perforation of the organ and the consequent passageway for the contents of the bowel into the abdominal cavity. This condition would invariably be followed by septic peritonitis, were it not for the facility with which the peritoneum by adhesive inflammation previous to the perforation, blockades the threatened pathway. The possibility of this blockade depends largely upon the varying anatomical situation of the appendix as regards the walls of the abdomen and the neighboring coils of intestines. Sometimes quite a defence can be thus extemporized and there then results, instead of a general peritonitis, a perityphlitic abscess.

Either result admits of ready diagnosis.

There is no need of pursuing the subject of general septic peritonitis. Its terrors are only too well known. The only rational treatment is its prevention. That failing, the source of infection having been removed, the abdominal cavity must be given the freest possible drainage.

A perityphlitic, or, better named, a periappendicular abscess, is a somewhat less frightful result of a perforated appendix. A fatal issue is not so probable, and at any rate, is not so immediate. The medical attendant has more time to collect his wits and to arrange for the proper treatment, which is, of course, surgical, as it is in every other kind of abscess. There is never any justification for delay in evacuating foul pus. And the audacity of physicians who make a specialty of not using the knife in medically treating such cases, where the stench of the pus if evacuated renders the patient's house almost uninhabitable, is equalled only by that of the mind-cure practitioners who are said to continue giving "absent treatment" to their patients, if not informed of their death.

It is not, however, my present purpose to discuss at any length the treatment of the sequelæ of appendicitis. I mention the sad subject only to emphasize the importance of preventing disasters, which are liable to follow any attack. Such prevention is entirely feasible. It depends upon cutting short the appendicitis. And this can easily be done by cutting off the appendix.

Before considering the question of the treatment, it is proper first to consider the diagnosis of the disease. This necessitates the closest clinical study.

Appendicitis is by no means an insidious disease. To begin with, there is generally the help of a history of previous similar, but milder attacks. The disease always causes pain. At first, this pain is only a general belly-ache, but more severe than,

for instance, the pain caused by sharp catharsis. Nor is it apt to be so distinctly wave-like in character as that caused by over-active peristalsis. It has from the first a most discouraging come-to-stay feeling. This early pain is relieved somewhat by general pressure over the whole abdomen, just as the pain caused by an ulcerated tooth is relieved by pressure over the whole cheek; but, as is also the case with the toothache, it is increased by strictly localized pressure. A further most important characteristic of the pain is that it is made worse by removal of the pressure. The pain is also increased by motions involving the right psoas muscle, and by bending the trunk to the left.

Later, in the progress of the disease, the pain is increased and more localized in the right abdomen. From the frequent proximity of the appendix to the ureter, the pain caused by its inflammation is apt to shoot upwards and backwards into the loin, and still more often downwards and forwards into the penis and right testicle, or into the right labium. This often causes intense desire and yet ineffectual attempts to empty the bladder. An attack of renal colic is thus simulated.

Even if a laxative has not been taken by the patient before sending for the doctor, there is generally the story of some strainings for bowel evacuation in the hope of thus relieving the pain. But so far as the diagnosis is concerned no attention whatever need be paid to the condition of the bowels. Patients usually give a history of previous costiveness, whatever the nature of their complaint.

The pain of appendicitis, besides causing more or less futile attempts to empty the bowel and the bladder, is almost sure to cause nausea and vomiting. A severe attack of acute indigestion is thus simulated, and patients generally ascribe their trouble to some imprudence in diet. Prudence is an uncommon virtue. Often the pain is ascribed to some muscular strain or abdominal bruise, which, except for the coincident or sequent pain, would have passed unnoticed.

Finally, the pain usually becomes intolerable, which accounts for the customary deadly administration of opiates. Were it not for this terrible morphine-masking of the disease, more cases would be treated by timely surgery, and fewer physicians would be thus lulled into the lethal stupidity of inaction.

So much for the history and subjective symptoms, which indeed, even if taken alone, would strongly suggest appendicitis. The positive diagnosis can be made only upon the additional evidence that may be gained by physical examination.

The rate of the pulse and the height of the temperature at any one time are of absolutely no consequence; the variation between successive observations is, however, of exceeding importance. In the early stages of the disease, the pulse quickens and the temperature rises as the inflammation advances. The increase may be very slight, but it serves to eliminate all non-inflammatory affections. It is, however, to be remembered that the pulse and

temperature are of absolutely no value as evidence after peritonitis subvenes.

By far the most important help in making the diagnosis comes from palpation of the organ itself. If in normal condition, even through the thinnest and most conveniently lax abdominal walls, it is doubtful if the appendix can be felt. But if it is inflamed, it is larger and more rigid; it generally contains concretions; it is then exquisitely tender to pressure, and, as has already been mentioned, it aches more during the removal than during the application of pressure; and under these conditions it can generally be located by careful palpation, and the fact of its inflammation thus established.

There is usually noticeable some slight dulness on percussion immediately over the point of greatest tenderness; but, on account of the inflated intestine often adjoining, the absence of this sign counts for nothing.

Were the appendix to be found always in the same position, its certain palpation would be far more possible, and McBurney's famous point would be more deserving of its fame. But only the base of the appendix, at its origin from the cæcum, has any approach to a fixed location, which, by the way, is considerably lower than McBurney's line; and as the appendix may be from one inch to five inches long, and may lie in any direction from its base, and further, as only its tip may be inflamed and tender, it follows that the distinguishing resistance and tenderness pathognomonic of the disease may be many inches removed from the McBurney point. As

a matter of fact this not seldom happens. If the appendix lies alongside the ascending colon, its tender tip may be found near the gall-bladder. If, on the other hand, it points downwards, its point of greatest inflammation, and consequently of greatest tenderness may be attached to the ovary or to the rectum.

The only value in the McBurney point is in the attention that has been given by those who sought for it to the importance of a particular localization of tenderness and of resistance to pressure.

If it be remembered in how many different positions the appendix may lie, and that the point of tenderness may be in any part of its variable length, then it will be seen that thorough palpation of the whole right abdomen is necessary in order to exclude the presence of an inflamed appendix. Indeed, in one case which I saw in consultation this point of especial tenderness was low down and to the left of the median line. On abdominal section, the tip of the appendix was found attached to the rectum and directly under the point of especial tenderness.

But happily the usual position of the appendix is in the right iliac fossa where palpation is easiest. The smooth hollow of the false pelvis gives an even counter-pressure to the examining fingers, which should be laid almost flat on the belly wall and slowly pressed down until the even resistance of the ilium can be felt. Then by very slow and steady motion the fossa is to be explored by carrying the abdominal wall along backwards and forwards with

the examining fingers. If no particular resistance or tenderness is encountered, then, after gradual release of the pressure, the fingers may be changed to another place on the surface, and so on over the whole right abdomen. If by such an examination no point of especial tenderness and of resistance is discovered, then there is no appendicitis. The converse, however, is by no means true. For when a definite resistance and an especial tenderness is localized even in the right iliac fossa, several other conditions must be considered and eliminated before making that diagnosis. Impacted fæces, movable kidney, malignant tumors, and in females enlargements of the uterine appendages also, must thus be considered. The two first named conditions, of impacted faeces and of movable kidney, ought not to escape definite diagnosis; but only by abdominal section can a positive differential diagnosis be made as regards malignant tumors or enlargements of the uterine appendages. And, in fact, the combination of these last named diseases with appendicitis not seldom occurs.

Where there is good reason to suppose the existence of an inflammed appendix, and yet where, from unusual thickness or rigidity of the abdominal walls, its presence cannot be determined, some aid may be got from examining the belly under full anæsthesia. Still more help can be got by incising the muscular wall down to, but not through, the peritoneum. This procedure is commended to those who, not daring to open the abdominal cavity during the lifetime of their patients, retain for their own

comfort the benefit of the doubt, instead of giving it, as they should do, to their patients.

In addition to these means of palpation we can employ the rectal touch, and in females the vaginal touch. Except in the rather rare instances where the appendix points directly downwards, little or no help is thus to be gained. In the diagnosis of perityphlitic abcess there is, of course, much more chance of gaining information by these routes. And indeed, after the abdominal walls are made rigid by a general peritonitis, that is often the only way of gaining information as to its cause. But let it be kept in mind that we are now considering the diagnosis of appendicitis, and not that of its sequelæ.

In order to emphasize the symptoms and signs by which this diagnosis can be made I offer the following summary:

Appendicitis begins with general pain in the abdomen, which afterwards becomes localized in the right side. This pain is constant; but is increased at times spontaneously, and always increased by palpation of the appendix and by motions of the body which disturb its relation with adjacent surfaces. It often shoots along the course of the ureter. It is generally intense. It is generally accompanied by tenesmus of the bladder and rectum and by nausea and vomiting.

There is always fever. This may be slight, but it steadily rises as the inflammation progresses until the complication of peritonitis subvenes. The inflamed appendix being larger and harder and often full of concretions, at the beginning of the

attack can be palpated. It is exquisitely tender to pressure. There is usually slight dulness on percussion directly over it.

Besides the diseases already mentioned, as simulated by appendicitis, in making the diagnosis there must also be excluded typhoid fever, perinephritic abscess, and all affections of the gall bladder and bile ducts.

It is within neither the scope of this paper nor the writer's power to set forth in full detail the processes of such eliminative diagnosis. But it cannot too forcibly be insisted that the diagnosis of appendicitis is not more difficult than that of any other local internal inflammation. This, indeed, would seem a superfluous assertion, while so many believe themselves able to diagnosticate even the particular varieties of the disease. Except by abdominal section there is no possible way of ascertaining the extent of the disease at any given time. Nor can the rate at which the inflammation travels ever be estimated with any sort of accuracy. Perforation may result in a few hours after the onset of the attack, or it may suddenly occur after many days of apparently mild inflammation. It is, therefore, puerile and ridiculous to lay down rules as to the proper day and hour for operating.

In perhaps half of the cases, perforation may not occur; but in half of these apparently recovered cases there will probably be a recurrence; and in half of these recurrences perforation is finally likely to happen. Of the cases where perforation does occur probably fifty per cent die because of it. Such,

however, would not be the sad fact if even then proper surgical treatment were generally employed.

The sum of it is that, under the present methods of treating appendicitis, in more than half of the cases consequent disasters are allowed to occur which are attended by a higher death-rate than that of pneumonia or even of diphtheria.

Were the appendix of any use, or were there danger in removing it at the very onset of its inflammation, there would be some excuse for this terrible mortality. Such, however, is not the case.

Let us now consider the treatment, and the reasons for the continued disgraceful diversity of opinions regarding the question.

Many writers upon the subject have apparently never seen a case of appendicitis. Having recognized its sequelæ at either ante-mortem or post-mortem examination of the abdomen, they imagine that they have recognized the disease itself. No other evidence of this general ignorance need be mentioned than the custom in medical journals as well as in the lay press of reporting deaths from appendicitis. Now nobody ever did die of appendicitis nor ever will. For the appendix being a perfectly useless organ, even its annihilation cannot injure the body except indirectly. But just as the most harmless fellow-citizen, who never would be missed, after his death, if his corpse be decently removed, may endanger the life of the community, so our innocent little appendix after its death is apt to become an offensive source of trouble in our midst. And to treat with salts a patient in whose abdomen lies

a putrefying appendix (as was lately recommended by a distinguished surgeon who maintained that once dead the appendix had done all the harm that it could do) is as reasonable treatment as it would be to depend upon flushing with sea-water the leaking sewers of a house where a cholera corpse was left lying in state.

There is, however, nowadays, excepting perhaps in the State of Maine, no theoretical opposition to the prompt removal of a gangrenous appendix. The question is as to the propriety of removing the inflamed appendix before the gangrenous stage is reached or rather before the existence of gangrene shall have been confirmed by the inception of peritonitis or of a localized abscess. There could not be two sides to this question, were it not for the unfortunate fact that some still think themselves able to discriminate in cases of appendic is which ones will eventuate in gangrene; or think themselves at least able to determine just when in any given case the inflammation assumes a gangrenous character. To this conceit should be ascribed the continued terrible mortality from the sequelæ of appendicitis. For, even admitting that a few experts have this extraordinary ability, which I deny, there is even so no safety in the ordinary practitioner's fooling himself with either his own or his consultant's guesswork. The physician who undertakes to treat his cases medically until gangrene occurs, and then to shift all responsibility upon the surgeon, will often find that he calls in the surgeon either a day too

soon, to his own mortification, or, if a day too late, to his patient's.

If those who believe that they themselves have acquired the skill to distinguish at the onset of the disease the mild from the fulminant variety would only remember by what experience such supposed skill has been acquired, it does not seem possible that they would advise the inexperienced to follow in their footsteps. Yet this is one effect of their teaching, and the only other logical deduction is the necessity resting upon all more modest practitioners of putting their patients to the expense of sending at once for the assistance of these would-be specialists.

Feeble attempts have been made, it is true, to inform the profession how to differentiate the sure-to-do-well from the sure-to-do-badly cases. But in these attempts no two authorities agree, and indeed, no authority of this year agrees with his own last year's deliverances. Apparently, the present position of these would-be diagnosticians is that one must be guided not by intelligible rules, but by impressions, which may be acquired only by long experience in watching cases go well, or from bad to worse, as fate may decide. Such experience apparently leads to the specialty of knowing nothing about appendicitis, however great proficiency may thus be acquired in dealing with the after-effects of the disease.

It is, however, not only that no one has as yet been able to formulate any serviceable method for making this very desirable diagnosis of the varieties

of appendicitis without abdominal section, but it is also to be borne in mind that in the very nature of the problem no such method need be expected. For there are many conditions frequently attending even the apparently mildest forms of appendix inflammation, all of which are unrecognizable from the outside, yet any one of which being present makes it certain that in that particular case either a perforation or a gangrenous sloughing off of the organ will occur. Thus who can reasonably hope for ability ever to tell with what kind of micrococci an inflamed appendicitis is loaded; or how thin its walls have become, and at what hour the perforation will occur; or in what position the appendix lies, and the direction in which its foul contents will then be shot?

If we are only to stand by with salts and sympathy and close observation in these cases, all of these awkward questions must be satisfactorily answered, or there will be more funerals; and until such questions can be satisfactorily determined it is the plain, unavoidable duty of the medical attendants in every case of appendicitis, and as soon as the diagnosis is made, to put his patient under surgical treatment. An hour's unnecessary delay in so doing is inexcusable, if not criminal, negligence.

This, I am well aware, is not yet generally acceptable doctrine to the profession.

It is easier to understand the position of the physician than it is that of the average surgeon as regards this duty of immediate surgical treat-

ment. The physician sees more than half of the cases, which perhaps, may be of appendicitis, do well under medical treatment; and where death or other grave disaster ensues, the physician generally is able to transfer a large part of the responsibility to the shoulders of some surgeon. So long as the surgeons dally with these cases, waiting for evidence of inflammation of something besides the appendix, it need not be expected that physicians will be in a hurry to transfer their appendicitis patients, and we shall continue to hear the sickening story of cases where at first all the doctors present were sure that it was only a mild catarrhal attack, but where suddenly the disease became fulminant, and where finally, at the last hour, the rigid abdomen was found to be full of stinking pus.

Those who oppose the rational radical treatment of appendicitis may be divided into four classes. Some do not know how to make the diagnosis. Some think they can diagnosticate even the varieties of the disease; others believe such knowledge possible; and finally, some have such an exaggerated fear of abdominal surgery that they allow their patients to take, instead of the chances under operation, the chances of not suffering any ill effects from the disease.

Attention has been given already to several of these objections. And now as regards the hope of future ability to tell beforehand which cases will surely do well without surgical intervention. Even if such knowledge be obtainable, will it come from the present custom of watching some cases recover

only to recur, or will it come from the too late operations, or even from evacuating abcesses that might have been prevented? Will not such knowledge come, supposing that it is within the bounds of hope, rather by the prompt than by the delayed use of the knife? And can it be doubted that more lives would thereby be saved?

It remains for us now to consider the objections founded upon the imaginary dangers and disadvantages of even a needless explorative laparotomy. The real danger and disadvantage is trifling in comparison with that of delay in applying prompt surgical treatment. There is the fortnight's confinement to bed and the remote chance of subsequent hernia. But supposing the abdominal section to have been proven needless, there is then no danger whatever from subsequent hernia. The different layers of the abdominal walls can be fastened by buried sutures, and even if hernia should result, its radical cure is afterwards a simple matter.

But only very seldom will an abdominal section, made under the diagnosis of beginning appendicitis, prove useful only in eliminating that disease by exclusion. Generally, the inflamed appendix can then be easily removed, and the disease eliminated by the excision; and where there is doubt as to its condition, or where there is difficulty in extricating it, then the early incision will be far more likely to prove to be a valuable sluice for a subsequent foul discharge than to be a source of danger or even of inconvenience to the patient.

I have several times seen fæcal concretions, and

sometimes even the gangrenous appendix itself, discharged through incisions which at the time of operating seemed to be almost profitless. This result may be especially hoped for when there is a history of previous severe attacks.

Those who object to the immediate operation on account of its supposed dangers and disadvantages surely can never have seen employed the treatment they ignorantly condemn. For no surgeon who has once amputated a gangrenous appendix before it has perforated, and before either a localized abscess or a general peritonitis has developed, can ever question the immeasurable advantages of so treating the disease.

From such treatment no deaths have ever resulted, so far as I am aware. Nor have I known of any hernia or other subsequent trouble to result. Patients so treated certainly do not suffer recurrences of the disease.

After delayed surgical treatment, all kinds of troubles and disasters may be expected, and are, indeed, often unavoidable. And it is just here that the blunder of reporting cases of the sequelæ of appendicitis as cases of the disease itself, works such mischief; for timid practitioners hesitate to allow the early use of the knife where the disease is in its original mild stages, thinking thus to avoid the terrible revelations belonging only to delayed surgery. It would be as reasonable for such men to object to timely surgery because of the frightful revelations of the after-effects of appendicitis discovered so often only at the autopsy.

One last objection to the treatment herein advocated remains for consideration. Its necessity and even its propriety is still questioned, and by surgeons and physicians of large experience and great prestige.

Believing, as I firmly do believe, in the necessity of treating the disease surgically as soon as ever the diagnosis is made, and that evey death resulting from appendicitis where the patient was not given the benefit of immediate surgical relief, is due to malpractice, I can but hold as responsible for the continued death-roll both those who advocate other methods of treatment and those who even tacitly approve the propriety of delay in such cases; for until the leaders of the profession either endorse the rule of immediate surgical treatment in every case, or furnish some other intelligible rule, it need not be expected that the present death-rate will be diminished.

Meanwhile, general practitioners make a great mistake in weakly depending upon the leaders of the profession in the simple emergency of an attack of appendicitis. There is too much of this shifting of responsibility business, nowadays. In the cities it may pay; it certainly does not pay in more sparsely-settled regions where the grave-stones stare at us so uncomfortably, as we ride by on moonlight nights.

And then appendicitis is only one of several emergencies requiring prompt abdominal section. In some, as for instance in strangulated hernia, the doctor who waits long before operating, is not gen-

erally considered a first-class practitioner. And yet the operation of amputating a gangrenous appendix is surely neither more imperative nor more difficult.

In the surgical treatment of the later stages of the disease, and of the frightful conditions following it, there is no limit to the skill and equipment needed. Even so, failure will often occur. But in the early operation ordinary surgeons will succeed.

Perfect asepsis is, of course, requisite. So it is in the simplest surgery, and only fools disregard it. There is then no danger in cutting down through the abdominal wall directly over the point of greatest tenderness and of greatest resistance, as discovered by previous palpation. The incision should should be a clean knife-cut throughout. Before incising the peritoneum, it should be picked up with the forceps and at first nicked through by the knife, to avoid wounding any underlying gut. For those who can recognize the large intestine when they see it (and those who cannot do so can readily learn by a little careful study at an autopsy) there is not much difficulty in finding the appendix. The longitudinal bands on the colon and cæcum run straight down to the base of the appendix.

In cases where the surgery is delayed, it may be impracticable for an inexperienced surgeon, or even for an adept, to remove the appendix. But in cases of immediate operation the appendix can easily be brought up out of the belly wound and cut off by a V-shaped incision, which will allow the in-

version of its edges and the approximation by Lembert sutures of their peritoneal coats.

If there is any gangrene of the outside of the appendix, it is not safe to close the abdominal wound: some gauze must be loosely stuffed into the cavity where the organ lay, which can be removed on the second or third day. But if the appendix has no gangrenous surface, then, after careful wiping out of the region involved, the abdominal walls can be safely closed by layers with buried sutures.

Such, in brief outline, is the operation by which patients suffering with appendicitis may be surely saved not only from death but from the chances of recurrence and of long-suffering.

I now beg to offer the following conclusions:

(1) Appendicitis itself is not a serious disease, for it is the inflammation of a worthless part of the body. It is, however, apt to recur. And any attack if left to nature or to medical management may cause a fatal purulent peritonitis of a localized abscess.

(2) Appendicitis can be as readily recognized as can any other local internal inflammation. The diagnosis, however, is easiest in the earliest stage of the disease.

(3) No rules can be formulated for differentiating the varieties of appendicitis, and of thus foretelling which cases will recover and which will cause dangerous or even fatal consequences. For there is no way, except by abdominal section, of ascertaining the rate of progress or the extent of

the inflammation in any given case; nor of determining the virulence of the contents of the organ, or its anatomical situation.

(4) The only rational treatment of the disease is its immediate ending, by excising the organ, before its own death or damage causes like results to its owner. This, at the beginning of the attack, is a feasible and an absolutely safe operation.

(5) The mortality in properly treated cases of appendicitis is *nil.*

HENRY AUSTIN WOOD

was born October 9, 1855, at Upton, Mass. He received the degree of A.B. from Harvard in 1878, and those of A.M. and M.D. in 1883. After graduation from the Medical School he served as interne in the Boston City Hospital for a year and a half. For a short time he practised at Roxbury and at Detroit Mich., and then associated himself with Dr. Worcester at Waltham, Mass., where he is still engaged in a most active practice. On June 3, 1898, he was married to Anna Wharton Smith at Philadelphia. Although a great part of his work is general practice he has achieved and has always maintained remarkable skill in surgical technic and judgment. What a vast experience Dr. Wood has had is reflected in the statement of Alfred Worcester that " . . . my colleague, H. A. Wood, outworks me to such an extent that I always seem to be doing nothing." These two men have practised together through the greatest forty years that medicine has ever known, and they are still up-to-date in every particular of the modern school. A cross word has never passed between them.

The Waltham Hospital, the Waltham Public Schools, the Waltham Training School for Nurses—in fact, the whole City of Waltham, Mass.—is a better place to live in because Henry Austin Wood has lived in it. The Harvard Medical School may well oe proud of him. He represents the finest in a fine profession.

THE PHYSICIAN'S EXTRA-PROFESSIONAL DUTIES

1895

". . . we find one of the newest hospitals built without an operating room, because, forsooth, the need of it was not suggested to the building committee."

NOTE.—At an adjourned meeting of the Massachusetts Medical Society, held October 3, 1860, it was

Resolved, "That the Massachusetts Medical Society hereby declares that it does not consider itself as having endorsed or censured the opinions in former published Annual Discourses, nor will it hold itself responsible for any opinions or sentiments advanced in any future similar discourses."

Resolved, "That the Committee on Publications be directed to print a statement to that effect at the commencement of each Annual Discourse which may hereafter be published."

THE PHYSICIAN'S EXTRA-PROFESSIONAL DUTIES

Mr. President and Fellows of the Massachusetts Medical Society:

On this one day of the year when we leave our patients to the restorative care of Nature, now so beautiful and bountiful, it seems not unfitting that we should ourselves turn from strictly professional themes towards our other interests.

And I am the more inclined to this course by my inability to present any deductions from my own experience in general practice which would be worthy of this occasion. Let us then give this hour to the consideration of our extra-professional duties.

However right it may be under other governments for professional men to devote themselves exclusively to their professions, under our form of government such seclusion is not justifiable. I need not speak of the common duties of citizenship that we share with the laity, for such political duties, however much neglected, can hardly escape recognition.

But I call your attention rather to those duties of citizenship belonging particularly to us as physicians, and yet not sufficiently recognized.

As our civilization becomes more complex the different duties of citizenship become less plain, but not the less binding. In earlier and simpler stages of social growth these different duties are

very plain. Thus, in colonial life, where the common welfare depends upon every man's doing each his part, there can be no question as to the respective public duties of the carpenter, the lawyer and the physician.

In the struggling out-posts of civilization it is not allowable for any one to shirk his share of public work; nor can any waste of power be afforded. Accordingly the carpenter is expected to direct the building of the stockade, and the lawyer must give part of his time to the shaping of the public statutes. Nor can there be any doubt as regards the nature of the physician's public duties. Plainly he must give to the community the benefit of his special knowledge in matters of public hygiene, and he must also take professional care of all who are dependent upon public support.

This, in the present age, means that the physician must give his best advice about the water-supply and about the disposal of sewage and garbage; that he must also give attention to the educational interests of the colony—not only guarding the healthfulness of the school children, but seeing that some of them are being fitted to be his assistants and successors; and even more plainly it means that he must lead the fight against all contagion and infection, and that he must plan a hospital and devote himself to its management.

As the community, which we are now imagining, grows larger, and as many physicians follow the footsteps of the individual pioneers, these special duties of citizenship do not rest upon all the

members of the profession at one and the same time, but may very properly be borne in turn. And further on in the growth of the community these extra-professional duties may be specialized and thus divided among the increasing number of physicians.

Still later in the process of development only a few of the whole number of the physicians may be needed in the public service, and then there naturally results a loss of individual responsibility for any share of the public duties that rest upon the profession as a whole.

But there can never come a time in the advance of a republic when any profession can be released from the obligation of public service. Most especially is this true of our profession.

Nor is it only a public loss when the medical profession fails in giving to the public service its due measure of devotion. For, in the charitable judgment of the people, if physicians do nothing for the State, then presumably it is not from their neglect, but from their general inability and inefficiency outside of their special province. There thus results to the profession as a whole a distinct loss of influence and of usefulness.

How fitting then it is on this occasion, when we meet together for renewed inspiration in our life work, that we should consider these extra-professional duties. Let us at least look them in the face. And let us see in what ways existing conditions might be improved by a larger devotion on the part of physicians to the public service.

Bearing in mind that the physician's public duty comprises those functions of government for which his education and experience have especially fitted him, and which cannot so well be performed by the laity, we find these functions dividing naturally into three classes:

I. The direction of educational processes, so far as the physical welfare of the public scholars is concerned, and also so far as special education is carried into any part of the wide domains of our profession.

II. The care of the physical well-being of all, either temporary or permanent wards of the town or State.

III. The legislation and the administration necessary in eliminating all infectious and contagious diseases.

I. The schools of Massachusetts in the past have very justly been the pride of the State. From the earliest days when the feeble Bay Colony gave so freely of its scanty store to the founding of Harvard College "in yon dim unventured wood," no expense has been spared to increase the efficiency of the public schools. And yet, from our point of view, is their present condition what it should be?

Is it creditable at this late day that school children should be promoted from class to class without regard to their physical, but solely according to their mental accomplishments?

After such efforts as have been spent in perfecting the system that produces uniform mediocrity

out of natural diversity, is it not high time for more attention to the easier problem of giving fairly well shaped bodies to the boys and girls who so soon will be the men and women upon whom our race depends? At least, is it not time for precautions against the actual damage of the scholars' bodies while their minds are being improved?

Shall tuberculous children continue to be huddled together with the healthy in improperly ventilated rooms, and shall the regular increase of diphtheria and of scarlet fever, that now comes with each school year, continue to rob the State of her boys and girls? Surely it is possible to prevent the attendance of desquamating children and to separate the tuberculous scholars from the healthy. At least, the school rooms could be kept scrupulously clean; the misnamed "sanitaries" could be made decent; and the dangerous modern custom of giving the old, soiled school books to the newcomers could be rescinded.

If the question be asked why such reforms are not at once inaugurated, the answer is easy. The school authorities do not understand the importance of taking such radical steps as would be necessary.

It must be remembered that we are descended, and not so very remotely, from ancestors who were not afraid of dirt. Cleanliness, though long held to be next to godliness, has not been considered pre-essential. Nor has dirtiness been thought incompatible with finest scholarship. The love of cleanliness is an acquired taste not yet possessed

by all of our race. And school-teachers who themselves hate dirt, hesitate to interfere with the independence of families who appear to dread bodily cleanliness. And, again, if the teachers should dare to insist upon having clean scholars, they have at hand no facilities for carrying out the reform.

School books are freely given out of the public purse even upon the subjects of physiology and hygiene, but soap and towels and bath tubs are not provided. How can hygienic principles be inculcated where their application is impossible?

Such provision may not as yet be demanded by public opinion; nor is the half of what at present is taught in the schools so demanded. But were the people and their school committees alive to the dangers that lurk in the dirt and in the noisome air of the school rooms, there would soon be a national house-cleaning of the schools.

Now, physicians know, as others do not know, that dirt is dangerous, and that foul air is even more to be feared. They also know that many of our endemic infectious diseases are propagated in the public schools. Physicians are therefore in duty bound to work for the remedying of these evils.

Moreover, physicians are especially able to foresee the advantages that would result from greater attention to the physical growth and well-being of the school children. Surely it need not be that the graduates of one school in this great country will always be distinguished from others by their splendid carriage. Each High School in Massachusetts

could give at least this much of a West Point training. Not by the scanty, spiritless teaching of gymnastics, nor by the perverted sports of the present age, but by a reasonable share of the time and attention now given to far less valuable training, the public schools could certainly improve the bodies as well as the minds of our children.

For the inauguration of such a reform physicians are the natural leaders. True, such leadership is likely to carry the physician into local politics where the scholar is not always welcome, but where least welcome the most needed. After thorough acquaintance with the actual condition of the schools in his district, and with the best conditions elsewhere, it is the physician's duty to persuade the school committee, if possible, of the necessity of improving the hygiene of the schools. This failing, then he must reform the school committee; and this means that he himself must be willing to serve on that committee, caring neither for any threatened unpopularity at the polls nor for any hostile criticism of his best endeavors. His efforts may not at first avail. Much that is disagreeable is likely to be encountered. Public service is generally thankless; and it is no easy enjoyment that the high duty of citizenship invites us. Nevertheless, the obstacles to reform are not so mountainous as at first they appear. The people, however much they may indulge in grumbling and in cheap newspaper abuse, are yet not slow to follow good leadership. Parents who at first object to innovations that affect their children and their purses are,

nevertheless, quick to recognize real improvements. Moreover, the times are fast ripening for thorough reforms in the public-school system. Parents are learning the dangers of infection. When the school bell rings for their children, they hesitate as never before to let them go. And if the medical profession could be prevailed upon to devote especial attention to the healthfulness of the schools, there would be general rejoicing.

Before leaving this subject we should note the fact that teaching is one of the obligations resting upon all professional men. Galen's famous oath requires every physician to impart his knowledge to the generation following. And although the medical student of to-day has no preceptor, and although the *science* of medicine is so splendidly taught in the great school close by, yet we must not forget the obligation resting upon us to pass on to others, in the measure we have ourselves received, the art of healing.

True, it may nowadays be somewhat awkward for the old physician to find room in the young graduate's head for any hints as to the treatment of patients. But, on the other hand, if our elder brothers, instead of combating the germ theory, would only teach us what they have learned about patients in life-long practice, if they would teach us what they have learned of comfort's art, then we should be nearer our professional millenium.

It is not, however, only to medical students and to younger physicians that we are under bonds. To the laity we are even more bounden to teach

the healing art, so far as we can, to all who are willing to learn it.

We hear nowadays of political campaigns of education directed against financial heresies. Of far greater use would be common sense crusades against the ignorance and superstition that now so flagrantly defy physiological laws.

In earlier times, when everybody knew all about everybody else, the village doctor was also in truest sense a teacher of his art, for then his precepts as to the care of the sick were widely known. Bedside watching was in vogue, and the physician's minute directions were faithfully followed by the kind neighborly nurses, and treasured by them for subsequent use.

Such times are gone by. The art of nursing is no longer a matter of inheritance or of tradition. In place of the neighbors we have nurses now who have devoted their lives to this work. They take the place of the physician's private students, who formerly in return for their instruction gave great assistance. In the same way these modern nurses look to the medical profession for instruction. And every physician, both for his own interest and for his patients', ought to do something towards their training. Even in the smaller towns this great work should be undertaken. Otherwise only the rich patients can be properly cared for, whereas under the former *régime* the sick poor fared as well as the rich. This is a matter for most serious consideration. The most effective opposition to socialism and anarchy can be made by removing

every such injustice. Rank and fortune ought not to flourish where love and charity for the sick neighbor die out.

I beg you to think of this. Call to mind your poorer patients who suffer for nursing which is now entirely beyond their reach. Think also of the many young women who would gladly and gratuitously do this nursing under your instruction, if only you would undertake their training. And then remember that fine old saying, *Noblesse oblige,* or, superior advantages bind to larger liberality.

A very mistaken idea has become current that nurses can be properly taught only in the large hospitals. Of course, it is quite true that nurses *for* hospitals must be trained in hospitals. But for private nurses such training is not by any means sufficient. The new profession of nursing did not originate in large hospitals nor in great cities. And in the original schools, hospital work is still only one of the many departments in which the nurses are trained.

The best nursing service in any community can be secured only by the efforts of the physicians in practice there. In the smallest towns, where as yet a training school is not feasible, great advantages can nevertheless be obtained by the co-operation of the local physicians with the nearest nurses' school. Such affiliations are happily fast mutiplying throughout the State. And even greater blessings will result as physicians more generally recognize their obligations as teachers of nurses.

II. In founding and in carrying on hospitals it

would naturally be thought that physicians would be leaders.

Within the last few years, as you well know, there has been a great increase in the number of hospitals in this country. And even in many of the smaller towns hospitals are now being projected. As the greater efficiency and safety of hospital treatment become more widely known, and as the many advantages of cottage hospitals become apparent, Christian charity more and more readily manifests itself in this form. The old time neighborliness and kindness is not lost, but in the hospital has become organized and centralized.

Physicians know best these and other great advantages; they know how rapidly modern surgery advances where hospital facilities exist; they know how effective isolation wards are in fighting epidemics; and they know best the blessings that the hospital affords for the otherwise homeless sick and injured.

And physicians also know best the requirements that must be fulfilled in the erection and in the management of the hospitals best suited for their different localities. Why is it then that the new hospital movement in Massachusetts is not everywhere being guided by the Fellows of this Society? True, in some places such is the case, but in many other places the hospital movement encounters either the opposition or the apathy of the medical profession. Too often it happens that the physicians whose coöperation is sought, unless given dictatorial power, sulk in their tents. This comes

from not being accustomed to public service, or from ignorance of American institutions. Dictators do not flourish here. And the people, who are the rulers, can be persuaded but not driven. If the first physicians are not willing to work with the hospital leaders, then they can meekly work for them or let others do so after the hospital is in running order. This they do in some of our cities. And in natural consequence we find one of the newest hospitals built without an operating room, because, forsooth, the need of it was not suggested to the building committee. In several other hospitals the Fellows of this Society accept appointments on "mixed" or "double" staffs, where different schools of practice are said to be represented, and where the rules and regulations for their guidance are drawn by lay managers. This they do "for the sake of harmony," and because of their conviction that except for such compliance on their part there would be either no hospitals or only homœopathic hospitals possible in these communities. But do they not thus overlook the fact that this compliance on their part formally recognizes and so perpetuates the false distinction which we all so devoutly wish to have obliterated?

The roots of this modern difficulty lie buried in the indifference of physicians as regards their extra professional duties. After hospitals have been inaugurated without the encouragement and guidance of those best fitted to guide such undertakings, then it may be necessary to accept the dictation of those who know no reasons why

patients at the hospital door should not be asked if they prefer homœopathic or allopathic treatment. But where the Fellows of this Society assume their rightful position in the community, where they show their hearty willingness to do their full share of public work, suck awkward predicaments do not arise. In such places there is no necessity for accepting distinctions and designations that ought not to exist, but instead there is grand opportunity for demonstrating that perfect liberality which should be our greatest pride and glory.

Of far more importance, however, than any question of medical ethics is the duty of the physician as a public-spirited citizen to see that proper care is given to those for whose care the community is responsible. Not only in the hospitals, but even more in the asylums and in the almshouses, a constant watchfulness is needed to ensure for the unfortunate the best care that a constantly increasing enlightment makes due to them. Nor can such oversight be relegated solely to officials, who are indeed the least able to secure even the reforms that they desire. In the almshouse infirmaries of England the sick and dying paupers have long had the best nursing that the kingdom can supply. Why should not the aged and impoverished of Massachusetts in their sufferings and in their last hours on earth have like blessings?

The people, if fully informed, would not let their enfeebled neighbors in the almshouse suffer for lack of improved methods of treatment or for lack of proper appliances for their relief and comfort. Nor would

the people, if they knew it, allow delicate orphans to be educated by the harmlessly insane paupers. Again, if the people heard the sorrowful tales told to the officials in the outside-poor departments of our cities—if the woes due only to sickness among the poor were generally known in the community—then there would be far less misery. But in our crowded, hurried life those who can give help and would willingly give it, do not actually see the needs. The physician is in the best possible position to bring into relationship the helpers and the helpless. Difficult as is the great question of almsgiving, in cases of physical helplessness there can be no question. Suffering obliterates all social distinctions. As regards the able-bodied paupers, let the professional scientific philanthropists have their way; but for the sick and the dying, for the maimed and the feeble-minded, let us follow the prompting of our hearts! Of course, there is here great need of good leadership. At the outset there is need of professional skill in discovering the extent of the physical suffering and helplessness, and in pointing out the proper measures for relief. It is the physician's public duty also to strive for the execution of these needed measures. He must follow the footsteps of Dorothy Dix. Her work was that of a true physician who recognizes his extra-professional duties.

III. The greatest advance ever made in medical science has been made during this last third of the century in making possible the prevention of many of our most dreaded diseases. Indeed, it may almost be thought that sanitation is a new science quite

distinct from the science of medicine. But in reality there is no such separation, and the prevention of diseases will always be only a special department of our profession. The apparent separation is owing mainly to the fact that the sciences of organic chemistry and of bacteriology, which are the foundations of hygienic science, are younger than the leaders of the medical profession. Comparatively few physicians have had opportunity for such studies, and in consequence the profession as a whole has not grasped the glorious opportunities which the microscopes have already revealed. Even where attempts have been made to realize these advantages, disappointments have often resulted. Surgeons have clutched at the shadows of great principles. Too often they have trusted to antiseptics regardless of the essentials of asepsis, the new-found goddess of hygiene.

After such wondrous revelations as to the causation of diseases it might perhaps be expected that a whole generation of physicians must go and come before the full advantages of these great discoveries can be realized. But it need not be so long.

There is no sense in the separation that exists to-day betwween the physicians in active practice and their brothers in the laboratories. Theory and practice must always go hand in hand if either is to be of greatest use. The bacteriologist, if he gives not half his heart to the widest clinical application of his knowledge, will lose his highest inspiration. And the busy practitioner who aspires to the highest fulfilment of his mission must now keep in touch

with the searchers in the dimly lighted world of germs.

The common meeting-ground for bacteriologists and for physicians and surgeons can be found in hospital work and also in the work of health boards. Fellows of this Society should never forget that Massachusetts owes her pre-eminence in public sanitation to the efforts of our former Fellow, the late Dr. George Derby, who organized our State Board of Health—the first in this country, if not in the world. I need not remind you of the great work now being done by this board under the guidance of its distinguished chairman and untiring secretary. But I ask you if the local health boards in our cities and towns deserve corresponding credit. The answer is shameful. The trouble is, that the men best fitted to operate this splendid machinery have not given to the Commonwealth that devotion she has the right to expect from all her sons. No grander opportunity has ever been offered to the medical profession than this of directing the work of public sanitation. Health boards have been authorized by the State in every city and town. To these boards the State has granted almost dictatorial power, and yet in more than one-third of our towns no health boards have been formed. One of these derelict towns has over 10,000 population. Although many of them are small, that is no excuse for sanitary obtuseness. Where the community has been properly taught the importance of public sanitary work, such work has been cheerfully supported. And yet, in spite of the provision that in the

larger towns one member of the health board shall be a physician, so negligent have we become of our extra-professional duties, that in many towns it has been almost impossible to persuade any physician to serve on the board of health, and in many other towns only second-rate men undertake such service. The best physicians say they have not the time, or they shun the notoriety and the possible unpopularity. As a necessary result the local health board too often lacks the confidence of the public and the coöperation of the medical profession.

Already, however, there are signs of improvement. Within the last few years the local health boards have formed a State Association for mutual improvement; and during the past year there has been a distinct advance in the coöperation of the bacteriologists and practising physicians. For this we are in part indebted to the City Physician of Boston, Dr. J. H. McCollom, who for many months generously gave his service to the physicians of this vicinity in determining for them the presence or absence of the diphtheria bacillus in suspected throats. Already in several other cities similar work has been undertaken. But is it not discreditable that this investigation of diphtheria is not being carried on in every city and town? Surely the health board in every community ought to provide for such work. Then might this modern curse of diphtheria be fought to some purpose. If not exterminated, at least it might be "in straiter limits bound."

Leprosy and small-pox have been conquered; and,

as a crowning triumph of sanitation, the last invasion of Asiatic cholera was repelled from our shores. Why should we not also drive out every infectious and contagious disease? At least, the complete disinfection of materials—dwellings, furniture and clothing—is possible and practicable. In other countries disinfecting stations are so well arranged that a private house or a school-house or a factory can be promptly and thoroughly disinfected. This is done for the good of the public and, of course, at the public expense. Why should this not be done in Massachusetts? Why should we longer allow the public to be fooled with the useless fumes of sulphur?

Ever since the pilgrims, perhaps in consequence of their previous close confinement on shipboard, succumbed in such frightful numbers to the "white pestilence," pulmonary tuberculosis has maintained in New England its deadly pre-eminence.

Until Koch's discovery of the bacillus of the disease settled all questions of diagnosis, the physician might have been excused for sharing with his patients at first that feverish hopefulness so characteristic of the early stages, and afterwards the absolute hopelessness that so long precedes the end. But now there is no excuse for such professional helplessness—at least the disease must be recognized. In the early stages there is undoubted opportunity for cure. In the middle stages there is still a fair chance. And in all stages of the disease there is the absolute necessity of preventing the infection of others.

The modern treatment of tuberculosis and of diphtheria, as well as the recognition of these diseases in their earliest stages, depends largely upon bacteriological work which very few physicians have time and facilities for doing. One central laboratory, however, can easily serve a great many practitioners. And such laboratories should be organized, so that these modern weapons against infection may be freely placed in the hands of every physician in the State. This is the proper work of the boards of health. But how can such work be done except under the direction of the highest medical intelligence? No better illustration could be offered of the importance of our extra-professional obligations.

Massachusetts has taken another of her great forward steps in exterminating tuberculosis from our herds of cattle. No longer is it unavoidable that the seeds of this disease shall be given to our children in their food. Would that we also kept the germs out of the air they must breathe!

True, it is a gigantic task that confronts us. Patients already infected with tuberculosis cannot be segregated as lepers are, and yet much might be done both for their relief and for the greater safety of others. Hospitals for diseases of the throat and chest might be established in our pine woods, in imitation of Sharon, and in our hill townships as well. Such sanitariums, properly equipped and properly managed, would effect the cure of thousands now doomed to die for lack of salubrious surroundings and modern treatment. To other

thousands, already far advanced consumptives, such hospitals would give every possible chance, and at any rate great comfort and relief; and at the same time, by bringing such patients under intelligent superintendence, much would be accomplished in preventing the further spread of the disease. Such measures, it is true, would entail a great outlay of public money. But the investment would bring most blessed returns. By affording every possible comfort to the hopelessly sick, and by giving to those who cannot afford either a change of climate or expert professional attention, the best hygienic surroundings and the recently greatly improved medical treatment, the State would have the moral right to require the stricter quarantine that is so important.

Tuberculous and healthy children should not be allowed to attend the same schools. For the tuberculous even better schools should be provided, and might well be afforded by any community where the safety of the young is properly valued. Tuberculous operatives should not be allowed at the same benches nor in the same crowded rooms with others. In any shop or factory it would be wise economy for both proprietors and employés to arrange for this separation even by pensioning the afflicted.

But the separation necessary to prevent the spread of tuberculosis among school-children and operatives is only a small part of what sooner or later must be undertaken in every enlightened community. It is even more necessary to educate every tuberculous patient to such personal habits

as will prevent repeated auto-infection, and at the same time ensure the safety of other members of the family and of the public.

That our foe is so mighty, so insidious and so firmly intrenched, ought to make us all the more eager to begin the fight. We must look out, too, that we stand shoulder to shoulder. Individual efforts will count for nothing. Even a single city or town could do little more than to set the example.

Plainly the lead must be taken by the health boards of the State, working in unison. This co-operation can be secured only by a greater devotion of the physicians in the public service. It is in this sort of extra-professional work—in stimulating the health boards to united, vigorous action—that physicians now have grand opportunity for usefulness.

We have now briefly considered three departments of public service where the knowledge and experience of physicians is greatly needed, in order to provide for all our people the advantages that now separately may be had here and there in other countries.

Under monarchical governments we might petition the king and his councillors for these reforms. But in a republic, reforms originate not in professional petitions, but in popular demands. The people are willing to be persuaded, and must be persuaded before they undertake reforms. Direct responsibility, therefore, rests upon those who alone are able to lead such movements.

In the evolution of this country we have not yet attained the condition of a perfectly representa-

tive government. And it is only in the higher development of this grand policy that our national hopes safely rest. Geographical sections may be represented, and voting districts may already be numerically equal, even political parties may be justly represented, but real representative government requires also that each class and profession and trade shall be represented. Such government, so far as our profession is concerned, can easily be obtained by concerted action. And one of the functions of the District Societies, and especially of the local circles of Fellows, ought to be the nominating of our representatives for public service in those departments where the help of our profession is needed. Such nominations would have the binding force that honor always imposes. And the physician's public service would be far easier if undertaken at the request of his professional brethren.

But it is not enough that we strive merely to secure the election of our professional representatives. It is even more important that we shall take a greater interest in the public work. One of the sections of our annual meeting might very profitably be devoted to sanitary science. Public measures that especially concern the medical profession should be discussed; and our opinions as physicians should be made known at the proper times, that is, in the formative stages of legislation when such opinions may be of some use. There would then be less ground for pessimistic criticism of school and hospital and health boards.

The three great needs are, first, an individual recognition of our responsibilities for extra-professional or public service; second, concerted effort to secure proper professional representation in the government; and, third, a continued interest in the public service of our Fellows for their encouragement and support.

It may not be uninstructive for us to look at the amount of public service now being done by the nearly two thousand Fellows of this Society, who are practising medicine in two hundred and forty of the cities and towns of Massachusetts. Twenty-five are serving on school-committees, and twenty-five others are serving on health boards.

In pointing out our present failures in these respects, I should not be forgiven if I did not make honorable exceptions. I see before me many of our older Fellows who in previous years have nobly earned exemption from further public service. It was their privilege to serve our country in the dark days of her sorest need. They gave freely of their youth and of their prime. No words of ours, at least in their presence, can fittingly express our joy and pride in having these heroes in our ranks. May they long enjoy our love and honor and gratitude!

And there were others, the comrades of our living heroes, who returned not from the battlefields, but who there gave to our country the last full measure of devotion. At this memorial season it is especially fitting that we should hold them in remembrance. Nor could any anniversary of this Society be complete without their commemoration. Their lot it

was to die in the midst of the nation's travail. For them there was no rejoicing over the new birth of perfect freedom, and over the restoration of the Union. But, like Dr. Warren, whose life-blood shed on yonder hill still quickens the pulses of patriotism, so these brave war surgeons, whose bones lie in the Wilderness, on the hills of Gettysburg, or in the swamps of the Chickahominy, have bequeathed to us the priceless blessing of noble examples.

Shall we prove ourselves worthy of our inheritance? In times of peace and prosperity shall we begrudge giving some small portion of our time to the public service in which they gave up their lives? Rather, as we return to our routine responsibilities, shall we not also willingly assume our extra-professional obligations?

I plead in behalf of anxious parents, who would give their all to ensure the health of their children, but who do not know as you know, in what ways this might be done. I plead in behalf of the distressed, for whom the public would gladly do more if only the way were pointed out. And, finally, I plead in behalf of generations yet unborn, that this dear land of ours shall be more jealously preserved from contamination, in order that the Commonwealth of Massachusetts for the coming ages may be the healthful home for succeeding generations.

God grant that it may be so!

THE TREATMENT OF OCCIPITO-POSTERIOR POSITIONS

1891

"The discovery of an occipito-posterior position is always a most unwelcome discovery."

THE TREATMENT OF OCCIPITO-POSTERIOR POSITIONS

The discovery of an occipito-posterior position is always a most unwelcome discovery. Even if all other conditions are favorable, this is unfavorable, and at best means a longer labor and an increase of all the dangers of exhaustion; while, on the other hand, in such cases, more often than in cases of occipito-anterior position, operative assistance is demanded, and yet can be given only with more difficulty.

In view of this greater probability that operative assistance will eventually be necessary, and in view also of the greater safety to both mother and child if such assistance be given early, I maintain, contrary though it be to generally accepted teaching, that, instead of being less ready, we should be more ready to assist the delivery in cases of occipito-posterior, than in cases of occipito-anterior, position.

I cannot, however, accept as very practicable the plan of rotating the fœtus from a posterior position to an anterior position before labor begins. For, even if it is easy to do, it can be done only at the sacrifice of the mother's natural confidence that all is just as it should be with herself and unborn babe. Moreover, this rotation can be just as well performed after labor has begun, when the sufferer longs for every possible assistance.

In this paper I propose to consider the treatment only of such cases as are unlikely to progress favorably either if left to nature, or if assisted mere-

ly by flexing the head and favoring rotation manually. After briefly considering the six methods in common use, I hope to show that one of these methods, slightly modified, is pre-eminently advantageous.

1. Let us first consider podalic version. By this method delivery can be quickly effected. The only disadvantage is the danger of lacerating the parturient canal; or, if time sufficient for the stretching of the perineum be allowed, there is then the danger of suffocating the child. Probably in no other obstetric operation does the personal equation of the operator count for so much. And the skill which alone can insure safety to both mother and child can be gained only at the expense of many a perineum and many a fœtus.

2. By manual rotation of the occiput to the front, the original disadvantage of a posterior position can be eliminated. Where this can be done without anæsthesia, and at exactly the proper time, no safer method of treatment need be sought. But, if done too early, the head will generally rotate back into its original position before it becomes engaged; while, on the other hand, if artificial rotation is not attempted before the uterus has firmly grasped the fœtus, it becomes a very difficult task. Moreover, it is only in exceptional cases that manual rotation can be done without anæsthetizing the patient; and then there is an awkward interval before the uterine and abdominal muscles sufficiently recover from the anæsthesia to engage the head. During this interval the new position can be maintained only by holding

with the hand. A more trying situation for both patient and accoucheur cannot be imagined.

Let us now consider the four methods of treating occipito-posterior positions by means of the forceps.

3. By applying the blades over the parietal bones, the head can be delivered with the face under the pubic arch. This can be safely done where the head is fairly small in proportion to the size of the pelvis, and where the perineum is very lax. But inasmuch as it can be done only at considerable risk, and only by much stronger traction than would be necessary if the occiput were in anterior position, this method can be recommended only when previous manual rotation of the head is contraindicated. Practically, it is probable that in a large proportion of the cases where the head has been delivered by forceps with the face under the arch, the diagnosis of occipito-posterior position has been made post-partum.

4. With straight forceps, the head can be rotated while in the parturient canal.

5. By repeated applications of the forceps, as the head rotates during its assisted descent, the natural progress can be imitated. Not having employed either of these last two methods, I am not justified in criticising. The objections to each method are obvious, but there could certainly be no objection to practicing either upon the cadaver.

6. After manual rotation of the occiput from posterior to anterior position, the head can be delivered by means of the forceps, or can be drawn

down into the pelvis in this acquired favorable position, and left for natural expulsion.

The only difficulties attending the employment of this method have been in conforming the traction to the axis of the parturient canal, and in maintaining the anterior position of the occiput while applying the forceps. The first difficulty, common to all high forceps operations, has been practically obviated by the use of axis traction instruments. And the second difficulty can be obviated *by applying the instruments under the guidance of the operator's hand inside the uterus.*

After the entire escape of the liquor amnii, and after the uterus has by its tonic contraction, or by its retraction, firmly grasped the fœtus, or still worse, after the head is impacted in the pelvis, it is, of course, as impossible to rotate the occiput into anterior position as it is to do podalic version. The trouble in such cases, however, is due, not to the impracticability of the method here advocated, but to the mismanagement of letting pass the only time when the child's life might be saved.

Until the child's life has been thus defaulted, it is certainly easy, with one hand in the uterus of the fully anæsthetized patient, for the operator to rotate the fœtal head into anterior position. He may, of course, need the aid of his other hand, or of his assistant's hands, on the outside. If now the forceps can be properly applied, the disadvantage of the original position will be overcome.

In the use of forceps at the brim of the pelvis,

unless the operator is exactly sure of the position of the fœtal head, of its complete flexion, and also of the location of the blades' impingement, it is a matter of luck if the delivery proves to be easy and safe. If there is difficulty in locking the instruments, or if, on traction, the handles separate, the operator of course will suspect that some mistake has been made in applying the blades. But the only way of being absolutely sure, and of rectifying any unfavorable condition, is by means of the whole hand inside the uterus. Now it is not practicable, after the forceps are applied, to introduce into the uterus the whole hand, but while the hand is inside the uterus, it is practicable, and safe, and easy to introduce and apply the forceps. The wrist and forearm of the operator, if rotated from his shoulder, allow each blade in turn to pass through the parturient canal alongside their sensitive flexor surfaces, thus beautifully guiding the blades into the uterus, where, in the palm of the operator's hand, each blade in turn can be applied to the elected area of the fœtal head. Having then locked the handles, and having placed the head in the most favorable position as regards the pelvic diameter, the operator can easily withdraw his hand alongside the shanks of the forceps.

If, now, axis traction appliances are attached, thus guarding against the dangers of traction in any tangent to the pelvic axis, the fœtal head can be delivered, or, after having been drawn down into the pelvis, it can safely be left for natural expulsion. If by this method the child's life is not saved, the

accoucheur may rest assured that the living child could not have been delivered *per vias naturales.*

In offering to the profession any new method, it is proper to give one's own experience therewith. I therefore add the reports of the four cases where I have employed the method advocated:

Case 1.—Mrs. B., primipara, 27 years old, had been in labor thirty-six hours when I was called by Dr. E. R. Cutler to help in her delivery, December 15, 1890. There was no engagement of the fœtal head. Under the mistaken diagnosis of an occipito-pubic position, the forceps was applied, and we each in turn vainly tried to effect delivery. After removing the forceps, with the whole hand in the uterus, the position was found to be occipito-posterior. Without removal of the hand after rotating the occiput to the front, the instruments were reapplied, the hand was withdrawn, and then the child was easily delivered in good condition. The posterior vaginal wall suffered a slight oblique laceration.

Case 2.—Mrs. R., primipara, 25 years old, had been in labor twenty-one hours when I was called in consultation by Dr. A. Greenwood, December 27, 1890. Her condition necessitated artificial delivery. Her pelvis was contracted; the distance between the crests of the ilia being 10½ inches, between the anterior superior spines of the ilia 7½ inches, between the trochanters 12½, and the external conjugate diameter being 6¼ inches. Under full anæsthesia the dilatation of the os uteri was completed manually. The occiput was rotated from left-posterior to left-anterior position, and, without

removal of the hand, the forceps was applied. Traction-rods were attached. After tremendous pulling, a male infant weighing 8 lbs. was delivered. His right eyelid was torn. With some difficulty he was resuscitated, but he died the next day, evidently from injuries received during delivery. The mother's vagina suffered several slight lacerations.

Case 3.—Mrs. H., quartipara, 29 years old, after several hours of ineffectual second-stage labor, was etherized, Dr. H. A. Wood assisting, March 24, 1891. The position of the fœtus was occipito-right-posterior. With the whole hand inside the uterus, the position was changed to occipito-anterior, and forceps applied before withdrawing the hand. A male child weighing 10 lbs. was then easily delivered. The mother's vagina and perineum suffered no damage.

Case 4.—Mrs. C., primipara, aged 22, had been in labor hours, and the pains had almost ceased, when, with Dr. H. A. Wood's assistance, she was etherized April 6th, 1891. The fœtal head had descended to the inferior strait in left posterior position. In spite of good flexion, there had been no sign of natural rotation. The head was thereupon pushed back above the pelvic brim, rotated to anterior position, and forceps applied to it before removing my hand. Extraction was then easy. The female child weighed 7 lbs. and was uninjured, although one blade of the forceps was applied to the right eyebrow. The mother was also uninjured.

CASES OF EXTRA-UTERINE PREGNANCY

1892

". . . I conclude that ectopic gestation is not uncommon hereabouts."

CASES OF EXTRA-UTERINE PREGNANCY

CASE I. *Supposed Tubal Pregnancy. Rupture of sac, death from hæmorrhage, no operation.*

Mrs. J. A. K., a large, stout woman, thirty-four years old, during the nine years of her married life had borne two children, one seven years, one three years before. For a year after her first confinement she had trouble in the right inguinal region; her right leg was numb and lame. This trouble was aggravated during her second pregnancy.

On September 3, 1889, she consulted Dr. C. M. Hutchinson (to whom I am indebted for this history). She then complained of the same old pain in the right inguinal region, which she had suffered for three weeks, and of great weakness. Her menstruation hitherto regular, was then two weeks overdue. Physical examination showed the cervix uteri to be large and soft, the fundus in good position. There was tenderness on both sides of the uterus, but more on the right.

September 17th. Though in better condition, she still complained of the discomfort in the right inguinal region. She was then flowing, but scantily.

September 26th. Dr. Hutchinson was summoned, and found that the patient, two hours before, had fallen to the floor unconscious. She was vomiting, and suffering some abdominal pain; her pulse was 65, temperature 98°, respiration 30 and sighing. The next morning, after a restless night, her face was pale and pinched, the pain had increased; the ab-

domen was somewhat distended and tender; pulse 60, respiration 28, temperature 97.8°.

I saw her, in consultation with Dr. Hutchinson, that afternoon. Her condition was even worse. She was tossing her head from side to side; her respiration was sighing and shallow; her pulse not countable at the wrist. The distended abdomen was dull to percussion at the sides.

Immediate operation was urged, and declined in view of her evident approaching death, which occurred a few hours afterwards. No autopsy was allowed.

CASE II. *Tubal Pregnancy. Operation twelve hours after rupture, recovery.*

I saw this case in consultation with Dr. E. R. Cutler, and as his assistant. I am indebted to him for the history and for his kindly allowing me to report the case.

Mrs. H. S. M., a slender woman, thirty years of age, had borne two children normally, the last nine years before. For the last few years she had suffered considerably with pelvic pain. She had had occasionally at about the menstrual periods, a dark offensive discharge from the uterus, of which she had been cured for the time by a thorough curetting of the endometrium.

On January 18, 1889, she complained of constant pain in the lumbar regions, and of an irregular discharge from the uterus, the blood coming at intervals in gushes. Physical examination showed the uterus to be tipped forwards and to the right. The fundus was tender. To the right of it nothing ab-

normal could be felt; to the left of it, and apparently in the broad ligament, could be felt a flattened mass, not very tender.

February 9th. Complained of dizziness and of occipital pain. Her menstruation was now one week overdue, and she had meanwhile twice had a slight discharge of blood. The uterus was now found slightly enlarged.

February 21st. The occasional traces of blood continued. The uterus was found to be still enlarging and to be lower down in the pelvis. She complained of headache, of nausea, of excessive thirst, of cravings for food, of sore breasts, of a sense of fulness at waist—troubles which she had experienced in previous pregnancies.

During the following three weeks she suffered much from nausea and vomiting, from occasional attacks of severe pain in the abdomen, and from an irritable bladder. But she had grown much easier, and had been gaining in every way, when early in the morning of March 23d (seventy-seven days from the date of her last menstruation) she was suddenly seized with most agonizing pain in the umbilical region. She soon became unconscious. Two hours later Dr. Cutler found her deathly pale, her pulse slow and very feeble. She complained of occasional waves of pain in the umbilical region. The abdomen was dull to percussion, especially on the left side. No change from the previous condition could be made out *per vaginam.* During the next few hours she gradually rallied, her pulse increasing in frequency and slightly in volume. That evening her

temperature was 99°. She was still in a desperately weak condition, but able to assent fully to undergo laparotomy.

Operation.—On incising the peritoneum a large amount of fluid and clotted blood escaped. In this stream there floated out a two-inch fœtus, anchored by its umbilical cord. On following down this beautiful guide, the placenta was found still attached to the ruptured sac, which proved to be the right Fallopian tube. This and the right ovary were removed; the abdomen was washed out with boiled water and the wound closed with silkworm-gut sutures.

Although the patient suffered greatly from nausea and from abdominal pain during her convalescence, she nevertheless was soon well and has so since remained.

Case III. *Hæmato-salpinx. Supposed tubal pregnancy, operation, recovery.*

Mrs. J. F. L., a strong healthy woman, twenty-nine years old, during her four years of married life had borne two children, the youngest one two years before. She had no breast milk; and four months after her confinement her menses appeared, and had since been perfectly regular. The last began on October 15, 1890. At the time when she should have menstruated again in November, she suffered the usual preliminary discomforts. A week later, November 19th, she had a sudden attack of pain in the left inguinal region, so severe as to prevent her walking to her bed. The pain was so severe

only for a few minutes, and left a dull aching. Scanty flowing occurred that night.

On November 28th the pain came again, and again on December 4th even more severely. It was most distinctly located, always beginning at a spot three-fourths of the way from the symphysis pubis to the anterior superior spine of the ilium, but two inches above Poupart's ligament, thence radiating into the left vulva. She was attended on December 8th, 10th and 14th, by Dr. J. T. G. Nichols. The severity of the attacks of pain on these days was such as to require morphine; after each attack there was a slight flow of pale blood from the uterus.

On December 15th I saw her in consultation with Dr. Nichols, and agreed to his diagnosis of a probable tubal pregnancy. The next day she was removed to the Waltham Hospital for operation. Not until both the patient and myself were fully prepared for the operation did I dare allow a thorough bi-manual examination to be made of the supposed seat of trouble, for fear of thus rupturing the sac and causing a hæmorrhage. I was content at finding exquisite tenderness in the line of the left tube. This caution was, I believe, fully justified, and too great emphasis cannot be given its necessity. For when the patient was on the table under ether, and a thorough bi-manual examination was made at my request, by Dr. E. R. Cutler, I am satisfied that the cyst was ruptured; for before being etherized the patient showed no sign of such an accident, and when directly afterwards I opened the abdomen, before disturbing the parts involved, there

welled up considerable blood. On bringing up the left tube, it was found to be swollen to the size of a finger. The ovary was attached to it, and between the tube and ovary was an organized blood-clot. After amputating this mass, and not thus controlling the hæmorrhage, I found the blood to be coming from the end of the omentum, which had evidently formed the upper wall of the cyst. This was ligated off in sections with catgut, and amputated. The right ovary was cystic, and in removing it the cyst was broken, allowing the escape of dark blood. The abdomen was flushed out with hot boiled water, a glass drainage-tube left in the Douglas pouch, and the wound otherwise closed with silkworm-gut sutures.

The patient made a most rapid recovery, returning to her home in a fortnight. She has since been perfectly well.

The specimens removed were sent to Dr. W. F. Whitney, whose report concerning the case is as follows: "I have never been able to satisfy myself of any fœtal structure in the specimen of hæmatosalpinx which you sent me. Possibly more careful sections, etc., which I hope to make in the future may help elucidate the problem; but at present it looks like a simple hæmorrhage."

In answer to my recent appeal, Dr. Whitney's reply is that he has not been able to find any additional evidence of pregnancy.

CASE IV. *Tubal Pregnancy. Rupture, operation, recovery.*

Mrs. L. V. H., a small, slender woman, nineteen years old, had lost forty pounds during the three years of her married life. Once she supposed that she aborted very early. She had otherwise always menstruated regularly every twenty-four days till this spring. Her last period began March 28th. She was thereafter as well as usual till May 8th, when she was suddenly seized with abdominal pain so severe as to "double her up." Vomiting and a sudden diarrhœa ensued. She began to flow slightly. During the following week she had many similar attacks of pain, and a constant pain in the right inguinal region, which were accompanied by spells of vomiting and occasional slight discharges of blood from the uterus.

Dr. C. M. Hutchinson, who saw her several times that week, kindly reports to me that there was a slight fever, a tenderness in the right inguinal region, and, on examination *per vaginam* a sense of fulness on the right side of the uterus.

Dr. J. Q. A. McCollester found the patient suffering from peritonitis, May 21st. During the next few days a tumor developed in the right inguinal region.

On May 24th I first saw her, having been called in consultation by Dr. McCollester, and Dr. Parsons of Ayer, who had formerly been her physician. She was then lying with her knees drawn up and as if pinned fast to the bed. Her countenance was

pinched and anxious. Her pulse was 130, temperature 103°.

The abdomen was very tender, and in the right inguinal region there was an evident tumor the size of a cocoa-nut. There was a slight ichorous discharge from the cervix. The anteverted uterus was freely movable; to the left of it all was normal, but to the right there was extreme tenderness, and a slight resistance.

The diagnosis was made of an abscess connected with the right Fallopian tube. An operation was not assented to by the family until the following day, May 25th. The patient's pulse was then 130, her temperature 104°.

On incising the abdominal wall in the median line an organized blood-clot was found adherent to the peritoneum, and on cutting through it a pint or more of dark blood escaped, and fully a pint more of clots had to be scooped out. I found the right Fallopian tube dilated and ruptured. This was amputated above a silk ligature. Several deep sutures were then taken next the uterus through the torn edges of the peritoneal investment of the broad ligament, which had become much softened. The cavity was then washed out with hot boiled water, and packed with iodoform gauze around a glass drainage-tube leading down into Douglas's pouch.

She recovered well from the operation. There was considerable oozing of bloody serum for several days. The drainage-tube was removed at the end

of a week, and for the week after there was a free discharge of pus from the sinus.

Her temperature was about 100° for the first week and normal thereafter. Her bowels were moved on the second day by salts. Her appetite became extra good, and her convalescence is now assured.

The specimen removed was submitted to Dr. W. F. Whitney for examination, whose report is as follows:

"The specimen consisted of numerous dark masses of clotted blood, and a small portion of the Fallopian tube. The latter at its point of removal was of normal size, but suddenly dilated into a cavity the size of the end of the thumb, which was lined with irregular projections to which clotted blood was adherent. Microscopic examinations showed folded and rather arborescent projections covered with columnar epithelium similar to the fimbriated end of the tube. Entangled in the clotted blood, adherent, were clumps of large flat cells similar to those of the decidua, and differing from the normal lining of the tube. There were no villi to be distinguished, nor were any fœtal remains found.

"My opinion is that this is a case of tubal pregnancy occurring near the fimbriated end with rupture at a very early stage."

CASE V. *Supposed Tubal Pregnancy. Rupture, operation, recovery.*

Mrs. E. O., twenty-five years old, married five years. Three years ago she aborted at third month

and was sick for a long time afterwards with "inflammation of ovaries, and uterine retroversion." She has never been well and strong since then, but she has always menstruated regularly, the last period occurring May 28, 1892. She was very well through the month of June.

July 7th, she was suddenly seized with a severe pain in lower abdomen, which lasted a few hours.

July 11th, I examined her at my office. The uterus was in fairly good position but fixed. The right tube was enlarged and exquisitely tender. The next night she was wakened with excruciating pain in the right groin and abdomen, which was only partially relieved by one-third of a grain of morphia hypodermically. Following this attack there was a slight discharge of dark blood from the vagina.

Similar attacks occurred July 16th and 19th, each accompanied by vomiting. During this time the mass in the right pelvis was enlarging, and could be felt extending into the iliac fossa, and also in front of the uterus. The tube was exquisitely tender, and, for fear of rupturing a sac, thorough examination of it was deferred until the patient was on the operating-table.

Dr. H. A. Wood saw her with me in consultation, and assented to the diagnosis of tubal pregnancy. She was moved to the hospital with the greatest care on July 22d, and after thorough preparation was operated upon the next day. On the way to the operating-room she screamed out that she had felt something "give way." An incision of three inches was made in the median line. Blood escaped on

opening the abdominal cavity. In front of the uterus was a mass of clotted blood easily broken into and evacuated. A thick, firm band extended from the tumor into the iliac fossa, which proved to be the appendix vermiformis. This was ligatured and amputated. The right ovary and the ruptured tube were also removed after ligature with the Staffordshire knot. The stump was cauterized. After thorough sponging out, and placing a glass drainage-tube in Douglas's fossa, surrounded with a gauze packing, the wound was partially closed with silkworm-gut sutures. She recovered well from the anæsthesia. There was no vomiting. The next day there was considerable serous discharge. After several doses of magnes. sulphat. she had loose alvine discharges. On the third day the gauze packing was removed. There were no complications, her recovery was rapid. She was sitting up at the end of a fortnight. At the end of the third week she was walking about easily and returned to her home. Since then she has become a very strong and healthy woman.

CASE VI. *Supposed Tubal Pregnancy. Rupture, operation, recovery.*

Mrs. C., a slight, delicate woman, thirty years old. Two years ago her only child was born by aid of forceps. She was very ill afterwards, and for a long time. She has since menstruated regularly till August 4th, 1892, when she flowed less than usual. On passing her expected period in September, she believed herself to be pregnant. She thought her stomach larger. There was morning nausea.

On September 11th she was suddenly seized with a terrible cutting pain in the rectal region. Her abdomen was afterwards tender. The pain never wholly left and was aggravated by defecation.

On September 15th, after another severe attack of pain, she fainted. Drs. Carroll and Baker, of Newton, to whom I am indebted for this history, found her in this condition. Her face was pale and anxious; pulse thin, 120; abdomen tender; pain located behind pubic arch and the right of median line; Douglas's fossa full, bulging with a mass that extended to right and pushed the uterus forward and to the left. This mass was exquisitely tender to the touch. The diagnosis was made by Drs. Baker and Carroll, of tubal pregnancy. Operation was advised and declined.

I first saw the patient the evening of October 2d. Her temperature was then 101.6°, pulse 110. Her belly was somewhat distended, and was tender to pressure, especially in the right iliac region, extending into the loin and to the median line. There was dulness on percussion over this region. The uterus was in normal position, somewhat fixed. There was a soft, fluctuating mass in Douglas's fossa, which extended up into the right iliac fossa.

The next day she was moved to the Waltham Hospital, and after thorough preparation was operated upon. Incision four inches, in median line. On incising the darkened peritoneum, dark blood escaped freely. The omentum was much discolored; the coils of intestine were soggy. About a pint of blood and clots was scooped out of Douglas's fossa.

The mass extending into the right iliac fossa was with difficulty torn from its base. This mass comprised the ovary and the enlarged and ruptured tube. The base was a ridge-like fold, seeming like a second broad ligament, only extending diagonally from the uterus up into the iliac fossa. There was profuse bleeding from this ridge, which was controlled by a row of sutures. A deep stitch into the uterus was also necessary to control the hæmorrhage from the friable stump of the tube. The abdominal cavity was thoroughly washed out with boiled water. Gauze packing and a glass drainage-tube were used. She recovered well from the anæsthesia.

The next day the dressings were soaked. The packing was removed on the second day, the drainage-tube on the sixth day. The abundant serous discharge became purulent. Her fever, though less than before the operation, did not entirely disappear till the third week. Four weeks after the operation the sinus was almost closed; she was able to sit up, and her strength and health were fast returning.

CASE VII. *Supposed Ovarian Pregnancy. Operation, recovery.*

I saw this case in consultation with Dr. H. A. Wood, and as his assistant. I am indebted to him for the history and for his kindly allowing me to report the case.

Mrs. S., thirty-one years old, had had three children, the youngest six years ago, and since this

confinement she had had more or less pelvic pain all the time, and every few months severe attacks. Three years ago she miscarried. Her last menstruation in December, 1890, was more painful and more profuse than usual, and following it there came the most violent attack of pain she had ever experienced. Dr. H. A. Wood was then called. He found her unable to walk without great pain in the pelvis; she could not even raise her left leg without it. There was an exquisitely tender mass in the left pelvis, which could be distinctly outlined through the abdominal walls, The uterus was pushed by it to the right. In the posterior cul-de-sac the mass seemed boggy. Under hot douches and fomentations she became easier, but the mass grew larger. She began to flow scantily, and, by some days too early. Her temperature was at this time about 99.5°, her pulse 100. The patient was then brought to the Waltham Hospital and duly prepared for operation, which was performed by Dr. Wood, January 18, 1891. On incising the abdominal wall in the median line there presented a globular tumor attached to the fundus of the uterus. Slight examination of it by the finger caused the appearance of dark blood, and in the Douglas fossa was found a mass of friable blood-clots. The tumor proved to be an ovarian cyst, the size of a small cocoa-nut. After aspirating and pulling up the sac, the enlarged tube was also brought up from the mass of blood-clots and amputated. The tube was occluded at a point one inch from the uterus; the outer portion, for three to four inches in length, was dilated, and

contained a firm blood-clot, adherent to the tube, two inches long and of a finger's size. The fimbriated extremity was embedded in a firm fibrous mass, the size of a hen's egg, which during removal was torn open. The right tube and ovary were also removed. The tube and parovarium were much congested and lay in the mass of blood-clots. The tube was pervious to the probe, but the canal, half an inch from the uterus, was very small. The right ovary was normal, and contained a corpus luteum the size of a pea. The left ovary was wholly cystic, no ovarian stroma being recognized by the naked eye.

After thorough douching with hot boiled water the abdomen was closed, except for a drainage-tube left in the Douglas fossa. The patient recovered well from the considerable shock of the operation. She was fed by the rectum for several days. On the fourth day her bowels were cleared by Rochelle salts, and her temperature, which had kept at about 100°, became normal. On the twelfth day the stitches were removed. There was not a drop of pus from first to last. On the eighteenth day she was sitting up; on the twenty-fourth day she was walking about; and on the twenty-sixth day she went home well; and so she has since remained.

COMMENTS

It will be noticed in this case that the ovum either before or after its impregnation must have crossed the abdomen.

The parts removed from the last three patients

were submitted to Dr. W. F. Whitney, who reports that his examination does not afford the absolute evidence needed to make certain that the rupture of the tubes was due to conception.

In only two of these seven cases, therefore, am I able to state positively that the trouble was due to ectopic gestation. I believe that this was the cause in all. And whether or not this is true, certainly so far as it can be made without the microscope, my diagnosis will hardly be questioned. In the cases where a ruptured Fallopian tube was found to be the cause of the intra-abdominal hæmorrhage there certainly is little doubt. It seems, therefore, proper to consider these cases as cases of ectopic gestation, at least for the purpose of studying the symptoms and physical signs which would again demand the treatment employed in six cases, and which I shall always regret not having been allowed to employ in the first case of this series.

It will be noticed that in each of the cases, with the possible exception of Case IV, the patients had previously conceived, and that the fœtation had been intra-uterine. But in only two of the cases had the maternal function been normal; and in one of these there is a history of a difficult labor and of a resulting long illness. In four of the seven cases there is a distinct history of previous pelvic inflammation.

In all of the cases the menstrual function, excepting of course during previous pregnancies, had been regular; and in all the cases there was an interruption of this function accompanying the troubles now under consideration.

Six patients thought themselves to be pregnant, and three of the six experienced the usual discomforts of beginning pregnancy.

Two of the patients were under treatment for pelvic trouble before suffering any severe pain; but in all there occurred, sooner or later, a sudden seizure of terrific pain. This, in one patient, came in the eleventh week after her last regular menstruation; in one, in the ninth week; in four, in the sixth week; and in one patient the severest pain immediately followed a regular menstruation. In five cases a slight discharge of blood from the uterus accompanied or followed this attack of pain. In four cases this was several times repeated. In one case this pain was located in the umbilical region; in one case it was in the rectal region; in three cases it was in the right or left inguinal region.

In all the cases there was especial pelvic tenderness; and in four cases there was exquisite tenderness in the affected tube. In three cases the enlargement of the tube was noticed before its rupture.

More valuable perhaps than could be any statistical study of so few cases will be the conclusions I have myself derived therefrom.

In the first place, then, I conclude that ectopic gestation is not uncommon hereabouts. Second, it is not a difficult matter to make the diagnosis, at least so far as the patient is concerned, although the microscopists may need a long time for the study of the parts removed before establishing that diagnosis. Third, the proper treatment is the prompt

removal of the afflicted tube or ovary, thus both anticipating Nature's usual method of slowly sloughing these parts away, and also avoiding the occasional fatal hæmorrhage. Fourth, this surgical treatment, which is frequently most urgently demanded, is not beyond the ability of the general practitioner, at least of such as will take the pains to prepare themselves for the emergency surgery of the abdomen.

THE WALTHAM HOSPITAL

A CASE OF CÆSARIAN SECTION

1893

"There is a special Providence for those who would be gently led."

A CASE OF CÆSARIAN SECTION

However valuable may be the study of separate obstetric cases, still more valuable is the study of a series of the labors and deliveries of the same patient. Besides the information to be gained by most careful observation and measurements of any given patient in labor, there is, in her previous obstetric history, a large element that most properly may affect the accoucheur's choice of procedure. But it is not easy to relate this history. It is not enough to have at hand the details usually given, the duration of the different stages, the method of delivery, the weight of the child, etc., what is of even more value at such a time is a vivid remembrance of the patient's behavior, of her pluck and of her endurance, both mental and physical.

The instinct of womankind to employ the same accoucheur in their successive labors, has most substantial foundation in the fact of its advantage as in the properly cherished domain of the feelings.

In the case I am now to report, I had the advantage of having delivered the patient in her three previous labors. Here is the report of the first two of these three, which I read to this Society in April, 1891.

On February, 1, 1889, I was called in consultation to deliver Mrs. C., a stout woman, twenty-six years old. This was her third pregnancy. The first resulted in a craniotomy; the second in a still-birth by podalic version. She had been in the second stage of labor for many hours, and forceps had been

several times tried. I found the head presenting in right posterior position, not engaged. After rotating the occiput to the front, I applied forceps and the Reynolds traction-rods. The extraction was difficult. The boy baby weighed eight pounds. There was no heart-beat and all efforts to resuscitate failed. The mother made a good recovery, and the next year applied to me to take charge of her in her fourth confinement.

I made these measurements: Distance between the anterior superior spinous processes, 7 in.; between the iliac crests, 9½ in.; between the tuberosities of the ischiums, 3½ in.; the external conjugate, 7 in.; the diagonal conjugate, 4½ in.

She was taken in labor August 8, 1890, being her fourth pregnancy. After twelve hours, the os being nearly dilated and the pains amounting to nothing, I completed the dilation, rotated the occiput from the right posterior to front position, applied forceps and traction-rods. On vigorous pulling I broke the left frontal bone, just above the zygomatic arch. I then performed craniotomy, and with difficulty delivered a female child which, minus brains and blood, weighed eight pounds. There was a severe post-partum hæmorrhage, finally controlled by hot intrauterine douches of one per cent. acetic acid. The patient made a good recovery.

When reporting these labors I stated that the patient was again pregnant and my determination never again to attempt her delivery at term, *per vias naturales.* In the discussion of the case my plan of inducing labor in the eighth month, met

with approval. The patient herself was delighted with the plan. She had given up every ray of hope of ever having a living child born, and had adopted another's child. She desired only that her delivery might be effected with the least possible danger to herself. And she could not be persuaded to provide a stitch of baby clothing. She was unwilling, as she said, to aggravate her inevitable disappointment.

On June 17, 1891, her pregnancy having reached the thirty-fourth week, I induced labor by inserting a catheter into the uterus. Labor began after twenty hours. For five hours her pains were quite regular, but then became worthless. The os uteri was half dilated. The head presented. Having determined the position to be O. S. P., I decided to complete the dilatation manually and to deliver her by performing podalic version. This was done without especial difficulty; but owing to the hardships of his birth the boy baby was barely resuscitated, and died the next day. The baby was well developed and weighed five and one-half pounds.

I then plainly told the parents that never again would I attempt her delivery except by the Cæsarian section. Owing to this threat, they carefully avoided my hearing of her following pregnancy, her sixth, until it was more than eight months advanced. The woman was then in a most miserable condition. She was very anæmic, her feet and hands swollen. She had been coughing continuously for many weeks. Fortunately her urine was normal. Her pulse was small and always over 100. Her husband and sister were most anxious to have the former procedure

repeated, thinking to save her alone. And as they would not consent to my strong urging that she should be sent to the hospital for Cæsarian section, I retired from the case.

Some weeks afterwards, at daybreak of June 8, 1892, I was summoned by Drs. Webber and McCollester, of Waltham, to help them in delivering her. She had then been in labor thirty hours. The liquor amnii had been escaping during all of this time. The os uteri was half dilated. The head presented in first position. All hands were then willing to have her moved to the hospital, where hurried preparations were made for operating. She was put under ether at 8 A. M., by Dr. Greenwood. I was further assisted by Drs. Cutler, McCormick and Wood. Fortunately, I had recently read Dr. Kelly's admirable article upon what to do and what not to do in such cases.

The thin belly wall was laid open for eight inches, half above and half below the umbilicus. The uterus was then incised six inches. The hæmorrhage was terrific, the blood spurting from several large vessels on each side. The placenta was in the way, and was not at once recognized, owing to the impossibility of sponging the wound clear even for a glance into its depths. On pushing past it, detaching one side of it, the arms were found presenting, but the feet were easily found and the nine and one-half pound boy delivered. He soon began crying. The uterus was immediately pulled outside the abdomen and the hæmorrhage controlled by my assistant's grasp of the neck. The placenta was easily removed. The

wound in the uterus was closed by about twenty deep silk sutures, and then this deep row was partially buried by a row of sero-serous fine silk sutures. This was a most difficult procedure, owing to the vigorous contraction of the uterus. And I would never again try, nor would I advise any one to try, this second row of sutures. I persisted in it only because so apprehensive that the interior of the uterus had been infected by the previous treatment of her labor, and in the hope thereby to seal the uterine wound more surely.

No shock followed the operation. The patient recovered well from the anæsthesia. She was somewhat nauseated through the day; she suffered pain enough to require one-sixth of a grain of morphia hypodermically: and she had to be catheterized only once. Owing largely, no doubt, to the fact that there had been no time for the proper preparation of her alimentary canal for the operation, she suffered almost from the first from great distension of the bowel. The evening after the operation she was given, by mouth, one drachm of sulphate of magnesia, four times; by rectum, two ounces of sulphate of magnesia, one ounce of glycerine, half an ounce of spirits of turpentine. Several liquid dejections followed. There was considerable gulping that night, and the prospect was far from favorable. But she rallied, and was able the next day to retain champagne, and afterwards meat-juice and milk with lime-water. Her temperature ranged from 100° to 101.6° for the following week, and her pulse kept above 120 for most of that time. But she was able

to nurse her baby after the second day, and, in spite of her fever and wretched anæmia, the baby throve finely.

There was never much pain in the abdominal wound, which healed quickly, and after the distension disappeared, seemed to have lost half its length. Fortunately her appetite soon became ravenous; she did not mind the excessive heat of the season; and, owing to her happy, contented disposition, and her pathetic gratitude for her living child, she made light of many discomforts which in most other patients would also have been discomforts as well for the attendants.

She was up and about at the end of a fortnight, and on the seventeenth day after the operation she was discharged from the hospital.

After a few weeks she went to her parents' home in New Hampshire, where she regained her old-time strength, soon being able to walk several miles. She came back to her home well and strong and with a splendid baby, still breast-fed.

THE TREATMENT OF PUERPERAL SEPTIC PERITONITIS

1893

". . . while it is highly improbable that puerperal septicæmia will ever again be epidemic, it is not yet extinct."

THE TREATMENT OF PUERPERAL SEPTIC PERITONITIS

Although it may seem profitless to discuss the treatment of a disease destined to extinction, yet, because of the very fact of its going out of fashion, the occasional belated victims of puerperal septicæmia seem not so likely to receive the benefits of recent improvements in the treatment of abdominal affections, as do the sufferers from the more fashionable disorders. The subject naturally does not interest the younger members of the profession who have never had the misfortune of meeting the disease. And yet, while it is highly improbable that puerperal septicæmia will ever again be epidemic, it is not yet extinct, and when encountered should be fought intelligently. I propose in this paper to discuss the treatment of the disease only after it has progressed so far as to involve the peritoneum.

In addition to the causation obtaining as well at other times and under other conditions, during childbed the peritoneum may also become infected either directly through the Fallopian tubes, or indirectly by the absorption and carriage of the poison by the lymphatics through the uterine walls and broad ligaments. Unless the Fallopian tube has previously lost its normal condition, it is unlikely to carry the poison directly from the uterine to the abdominal cavity, for the effect of the germs upon the lining of the tube would be such an inflammation as would render it impervious. But if the tube has previously suffered purulent inflammation, or,

indeed, distention from any other cause, then, its larger cavity having become infected, its foul contents may easily escape into the abdomen.

The immediate result of this primary infection of the peritoneum is, of course, a septic peritonitis; and this may be circumscribed or general. If the former, it may so remain, or from it may develop the general peritonitis which nine (if not ten) times out of ten kills the patient. At the beginning of any case of peritonitis no man living can foretell whether it will prove to be mild, circumscribed and comparatively harmless, or fulminant, as the fatal cases are styled. And even if the case proves to be of the circumscribed variety, there will almost inevitably result, after a long and tedious sickness, such a mass of adhesions as will forever impair the patient's usefulness.

A more dreadful disease can hardly be imagined, but fortunately it is not insidious. Although many conditions bearing to it more or less resemblance may frighten the inexperienced into believing that they are treating it with their salts or what not, yet when it is actually present there is no mistaking its deadly grip.

The symptoms of septic peritonitis are nearly alike whatever the cause of it. If, however, it is caused by puerperal sepsis, there is always an accompanying high temperature, which indeed is a fairly good index of its severity. But it is not my present purpose to consider at any length the differential diagnosis: I wish rather to ask your attention to the treatment of the affection.

As in all other kinds of septic peritonitis the only reasonable treatment is surgical. It is absolutely necessary to find the source of infection, to remove it if possible, and, failing that, to render it less nocuous by thoroughly draining the peritoneal cavity. Is it not time that this statement can be accepted as axiomatic? Granted that it may have seemed wild several years ago to have advocated the immediate excision of a gangrenous appendix, in the light of our present knowledge of abdominal surgery can it be necessary to-day to argue in favor of the same principles in the treatment of septic peritonitis caused by a gangrenous Fallopian tube or uterus?

It surely will not be maintained that, without a cœliotomy, it is ever possible either to determine the cause or to remove the cause of a septic peritonitis. True, a good guess can be made. If, for instance, the trouble evidently began in the right iliac fossa of a woman, it is probably due to an appendicitis, a perforated cæcum, or a salpingitis. If the trouble began on the left side, the guessing is easier. In either case, and even if correctly guessed, the etiology of the disease is useless to the patient, and unless the source of the infection be directly attacked, it is mere nonsense to attempt any medical treatment of the disease. Given any case of septic peritonitis occurring in the puerperium, there is no certainty except by surgical exploration that the trouble is not due, for instance, to a perforation of the intestine. What then, pray, would be the effect of the Epsom-salts treatment of which we have

formerly heard such praise? What but to force out through the perforation more and more infection? Not useless but murderous would be such treatment. Or, in another case, how can our opium-relying friends be sure that the trouble is not already aggravated by, or even primarily due to, impacted fæces? As a matter of fact, and in proof of the acknowleged uncertainty as to the cause of septic peritonitis, physicians have arrayed themselves latterly into three equally intelligent classes,—those who give opium always, those who give salts, and those who, having no especial predilection for either drug, give both alternately or combined. I desire here to make respectful acknowledgments to the distinguished surgeons from Maine, who, at a recent meeting of our parent society, one with salts and one with opiates, so vigorously combated my views on the treatment of appendicitis, which disease, after all, is only a species of septic peritonitis.

The first axiom in the treatment of the disease is to find its cause. The second is to remove it if possible. "Well, but what if it be found that the uterus itself is gangrenous?" I was asked in holy horror the other day. "Would I take it out?" There is no need to answer. As useless to argue with such a mind as to try to persuade the Epsom-salts man to forswear his idol. And yet the question sheds light upon the fatuous opposition to the surgical treatment of peritonitis. There is little use in opening the belly, if, having done so and having found the gangrenous origin of the peritonitis, there is

then any hesitation about removing it—whether it be appendix, ovary, tube, uterus or a coil of intestine. Little use, it is true, but still not altogether useless is such treatment; for if thorough drainage is afterwards maintained there is thereby given the chance of slow recovery that would not otherwise exist.

Then, having discovered the cause, having if possible removed it, and, if that is not feasible, having protected the rest of the peritoneum by thorough drainage of the gangrenous region, then, and not till then, comes the reasonable opportunity for the brilliant use of salts or of the comfortable employment of opiates.

Allow me at this point to insist that we are considering the treatment of septic peritonitis occurring in child-bed. Let no criticism of the treatment there advocated be based upon the undoubted recovery of patients otherwise treated who were not victims of this disease. Before reporting the three cases which I offer by way of illustration, it will not be amiss to state that I have unfortunately had considerable experience with the disease before its prevention was well understood. During my service as senior House Physician in the Boston Lying-in Hospital it became necessary to close the doors because of the frightful extent there of puerperal septicæmia.

At one time I had under my charge in the neighborhood of twenty cases of the disease. In several of these cases peritonitis developed. The mortality was awful. Some were treated with opiates; some with salts. Some were constipated; some were from

the onset of the disease in a state of continuous purge. The nurses and even the house physicians also suffered from a drastic purging, due apparently to inspired stench. After such experience not even a fool would pin his faith upon any drug treatment of the disease. I now offer the following reports of cases occurring in my private practice.

Case I. *Puerperal septic peritonitis; death, autopsy.*

On December 3, 1883, I was called in consultation to see Mrs. J., who had been delivered nine days before by version after unsuccessful attempts with the forceps. On the third day after delivery she had a severe chill which was followed by continued fever. Intrauterine douches had been given every two hours night and day for several days. Her temperature at the time of my visit was 108° in the axilla, her pulse 160. She was just recovering from a chill. For the following few days intrauterine douches were given only twice daily, and were followed by intrauterine insufflations of iodoform. But still, although the fever was never afterwards quite so fierce, the chills continued daily, and after December 8th intrauterine treatment was abandoned. Turpentine enemata were occasionally employed to relieve the abdominal distension, and with the help of licorice powder the bowels were kept well open. For a time she seemed to improve; and after a lapse of forty-eight hours without a chill or a rise of temperature above normal, for a day or two there seemed good reason to hope for her recovery, but on December 17th the chills

began to come several times a day. There was at this time a special tenderness in the right iliac fossa, where indeed the greatest pain had been localized from the first, and, besides the tenderness, some resistance to pressure was there noticeable. She grew weaker and died on December 23d, the thirtieth day of her confinement.

Autopsy, twenty hours after death. Head not opened. Lungs slightly œdematous. Pericardium contained two ounces of fluid. Heart normal. In the liver there were many large, cheesy deposits under capsule. Spleen pulpy and dark. Stomach and intestines not opened. The cæcum was adherent to the abdominal wall and to the omentum. In this mass of adhesions was pus. Ovaries normal. Broad ligaments both riddled with pus sinuses, on the right side evidently connecting with the abscess next the cæcum. The uterus was honeycombed, and its tissue soaked with ichorous pus; but its cavity was clean and well lined with iodoform.

Case II. *Puerperal peritonitis; operation; death.*

Mrs L. M. E., a delicate little woman, during her fourth pregnancy fell through a cesspool-cover, striking her abdomen. She was severely bruised and lamed. But her pregnancy terminated in an easy labor at the proper time, May 18, 1890. She was attended by Dr. C. M. Hutchinson, of Waltham, to whom I am indebted for this history. There was considerable hæmorrhage following the delivery which was controlled by ergot and hot intrauterine douching.

The next day her temperature in the morning was normal; she had passed a good night. That afternoon she had a chill. In the evening her temperature was 102°, pulse 140. There was abdominal tenderness, especially on the left side. She passed urine freely, and her bowels moved naturally. There was no unusual odor from the lochia. She was restless that night.

May 20th, the third day, the temperature was lower, perhaps from the use of antifebrine, the highest being 101.8°. She complained of pain. The abdomen was slightly distended. The uterus was fixed in the left side and very tender. Turpentine stupes employed. One large, loose dejection that afternoon.

May 21st. In more pain. Temperature 103.8°, pulse 130. Abdomen more distended.

Such was her condition when I first saw her in consultation. Although her bowels were moving loosely several times daily, we decided to employ the salts treatment, and she was given half an ounce of Epsom salts, and a few hours afterwards an enema containing half a fluid ounce of turpentine. There was no improvement in her condition that day or ever after. Morphine soon had to be given for the pain; and only by the free use of whiskey and of tincture of digitalis could she be kept from failing. The abdomen grew more and more distended; she kept belching gas, and finally could be given food and stimulants only by enema.

In this terrible condition an operation was assented to by the family. With the assistance of

Drs. Hutchinson and H. A. Wood, I incised the abdominal walls in the median line. As much as a quart of sero-purulent fluid escaped, with abundant flakes of lymph. There was considerable pus collected in the left iliac fossa, set free by finger examination. There was only time for flushing out the cavity, so bad was her condition. A drainage-tube was left in Douglas's fossa. She hardly rallied from the operation, and died the following night.

In briefly reporting this case at the meeting of the Obstetric Section of the Massachusetts Medical Society in June, 1890, I stated my belief that, had the operation been performed when it should have been—at the commencement of the peritonitis—this patient might have been saved. And I stated also my determination, if ever again so unfortunate as to find peritonitis occurring in the lying-in period, to operate when I found it.

Case III. *Puerperal peritonitis; operation; recovery.*

Mrs. J. H. R., had been married two years. Shortly after her marriage she was very sick with pelvic inflammation, which resulted in an abscess that discharged freely per vaginam. After an easy pregnancy and a normal labor (April 22, 1892), she did very well for a week, when suddenly there developed great pain in the lower abdomen accompanied with a temperature of 101°. The next day the temperature was 102°; there was more pain, and there was tenderness, especially in the left iliac fossa. The lochia being somewhat foul (as indeed is always the case when there is fever) an intraute-

rine douche was given of a hot $HgCl_2$ solution (1 to 10,000). The uterus was only four inches deep; the cervix was not very patulous; there was no foul débris in the wash-water; and, in short, there was no sign of septic endometritis.

In spite of hot douches and of hot poultices, the abdominal tenderness, the pain and the fever increased. The trouble seemed to radiate from the left iliac fossa. On the third day her temperature was 103.6° all day. Dr. H. A. Wood saw her with me, and agreed to the diagnosis of septic peritonitis.

On May 2d, after an enema of whiskey and peptonized milk, she was etherized, and the abdomen opened for two and one-half inches in the median line. The peritoneum was highly congested. Considerable serum escaped; and on digital examination of Douglas's fossa and of the left iliac fossa, large lymph flakes were set free. The right tube was enlarged and surrounded with old adhesions. After flushing out the abdominal cavity with hot water, a tube was left in Douglas's fossa. She recovered from the operation well, the temperature the next day was 100°, and practically normal thereafter. There was not much discharge from the drainage-tube, which was removed on the third day, nor from the sinus afterwards. Excepting for a slight cystitis, caused no doubt by the catheterizing, there was a rapid convalescence; and this, in spite of the arrival from Colorado of her dying husband the very day of the operation, and of his death the week after.

On the tenth day she was sitting up; on the fourteenth day, walking about; and by the fourth week was well and strong. She has not suffered the least discomfort since.

FIVE CASES OF ECLAMPSIA, WITH COMMENTS UPON THE TREATMENT

1896

"The rapid induction of labor by manual dilatation of the cervix is a difficult and dangerous operation."

FIVE CASES OF ECLAMPSIA, WITH COMMENTS UPON THE TREATMENT

CASE I. *Eclampsia following delivery. Recovery.*

A primipara, twenty-two years old, after a day of pain which she had concealed, was finally forced to admit her illegitimate pregnancy by the gush of liquor amnii at 5 P. M., December 15, 1885.

At 9 P. M., I found her in a dazed, stupid condition. Her face was decidedly edematous. She had not been passing much urine for some days. After the birth of a six-pound girl at midnight, and in fifteen minutes the delivery of the placenta, she was seized with a convulsion. In fifteen minutes a second occurred, and a third a half-hour later. For several hours she was comatose. During the following afternoon she had several convulsions, finally controlled by the hypodermic injection of a half-grain of morphia, and by the forcible police removal, at my request, of the lady of the house, who persisted in upbraiding the patient for damaging the reputation of the premises.

CASE II. *Eclampsia during labor. Recovery.*

On June 10, 1887, I found Mrs. S. F. Z. in a most wretched condition. She had previously borne five children without trouble. For several weeks she had been suffering from headache, and for several days she had been having occasional labor pains. The os was not larger than a silver half-dollar, the lips were wire-edged. She was vomiting often. Her urine was very scanty, and dark brown. Cream-of-tartar

water was given her. A few hours later, during my absence, the five-pound boy was born during a convulsion, and without the nurse's knowledge. Four hour later a second convulsion seized her. The room was then made very hot, and free perspiration obtained. Morphia, half a grain, was given hypodermically to quiet her. After a long sleep she appeared as well as ever, and made an uneventful recovery.

CASE III. *Eclampsia. Manual dilatation, podalic version, recovery.*

Mrs. C. H. was a primipara twenty-four years old. She was seven months pregnant. One evening she complained of headache. Her feet were much swollen. Her urine contained a trace of albumin, and had not been noticed to be scanty. The next afternoon she vomited, became blind, and soon was in a spasm. She had barely recovered consciousness half an hour later, at the time of my arrival. Immediately there came a second spasm, and in ten minutes a third. She was then etherized and manual dilatation begun; but it was a full half hour before even one finger could be inserted, and nearly two hours before dilatation was completed. Then, by podalic version, a two-pound girl was delivered. The baby lived only for a few gasps. The patient was superheated by means of hot-air from a lamp-chimney carried through a stove-funnel into her bed, and was soon copiously perspiring.

She made a rapid and uninterrupted recovery, but has since had to undergo operation for the repair of

her cervix, which was torn through into the vaginal vault.

CASE IV. *Eclampsia following labor. Recovery.*

Mrs. B. O., a strong, healthy primipara, several hours after a perfectly normal labor, was seized with a convulsion, and became comatose.

I saw her, in consultation. Her urine, drawn by catheter, solidified on boiling. Nitrate of pilocarpine was given hypodermically, and hot air carried directly into her bed. She soon perspired freely. The next day she became conscious, and subsequently made an uninterrupted recovery.

CASE V. *Eclampsia without spasms. Partial suppression of urine, recovery.*

On September 20, 1896, I found Mrs. B. I. J. suffering with a snapping headache which had lasted for several days, preventing her from sleeping, and which had now become unbearable. She had passed through a former pregnancy nine years before normally, save for a severe post-partum hemorrhage. Now her hands and face as well as her feet and legs were very edematous. Her urine was scanty, and contained one-quarter per cent. albumin with hyaline and granular casts in abundance. She was eight months pregnant.

Phenacetine gave her some relief from the blinding headache. Her bowels were freely moved with Seidlitz powders. Cream-of-tartar water and coffee increased the flow of urine for a time. But soon, on account of her constant vomiting and agonizing headache, morphia and pilorcarpine were used hypodermically. But after free perspiration she

would be comfortable for several hours. But she was unable to lift her head from the bed. She slept only in naps of a few minutes' duration. She became very restless, and her eyes and face were constantly twitching.

Preparation were made for the induction of labor, but from day to day this was postponed. For ten days she passed only 126 ounces of urine; on one day only 10 ounces; and only 18 ounces the best day.

During each of these ten days she was given at least five pints of liquid nourishment and water. Diuretin, in ten-grain doses every four hours, was given without any apparent effect. But she gradually grew more comfortable; and quite suddenly, after several days' use of Basham's mixture, she began passing more urine, the daily amount jumping from 20 ounces to 37 ounces, and then to 73 ounces. The edema lessened greatly. All medicine was stopped. During the following three weeks she passed sufficient urine, the least amount being 40 ounces. Her appetite returned, and she was able to sit up for a few hours nearly every day, but her headache continued and she slept very poorly.

As her confinement drew near, she became worse again. Her urine amounted to only 163 ounces for the week immediately preceding her labor, to nine ounces the day before, and to eight ounces the day of her labor. The edema returned, together with the severe headache and vomiting. Bromo-caffein was given in large doses, and morphia occasionally. Basham's mixture was again employed.

On October 28th she passed through a normal labor, and gave birth to a large boy. On the following day she passed four pints of urine, and the diuretics were omitted. Her convalescence was rather slow; but she was able to nurse her baby, and she made a perfect recovery. When the baby was a fortnight old her urine again became scanty, one day amounting to only one pint. The headache and vomiting also returned, but under the same diuretic treatment she again rapidly improved. At the end of a month the urine became normal in amount and entirely free from albumin.

She is now (two years later) a perfectly well woman, and her baby is a perfectly well boy.

In previous papers read before this Society and already published I have reported six other cases of eclampsia, making eleven cases which have occurred in my seven hundred midwifery cases. In four of the eleven cases the mother died. In two cases the premature child died. In two cases the fetus was macerated. In only five cases the child survived.

Inasmuch as both the mother and child lived in the four cases where the labor was neither induced nor assisted, the treatment employed demands close scrutiny in accounting for the frightful mortality.

Two of the four mothers who died were under my own observation for some time previously. Had they been as carefully watched and as faithfully nursed as was my patient last reported (Case V), I cannot but believe they and their babies would have lived. And I also believe the same of another of

the mothers whom I saw only in consultation. The fourth mother who died had not been under medical observation. She died probably from shock or from etherization or from hemorrhage, or, in other words, from too energetic treatment. Her baby survived.

Four premature babies were practically sacrificed where forcible induction of labor was employed, on the supposition that such treatment alone would save the mother's life. Twice this may have been true, but in two of these cases not even the mother was saved. In all the cases fortunately the father survived.

It may be presumptuous to attempt any deductions from such a record as to the proper treatment of eclampsia, especially as it is customary to base recommendations as to treatment only upon uninterrupted successes. Nevertheless, believing as I now do that the treatment employed was not theoretically right, I offer the following criticism and conclusions:

(1) It is more important to keep account of the amount of urine excreted by pregnant women than it is to test it occasionally for albumin. And if the amount is scanty, prompt measures should be taken to promote diuresis; failing which, then catharsis and diaphoresis should be induced.

(2) In cases of eclampsia, before term, diaphoresis should be tried before resorting to the induction of labor. Hot air is the safest and most effective means thereto.

(3) In cases of eclampsia occurring at term,

diaphoresis should be employed *while* inducing and expediting delivery.

(4) The rapid induction of labor by manual dilatation of the cervix is a difficult and dangerous operation, which if combined with forcible delivery of the child is well calculated to add to the shock already caused by the eclamptic attack.

(5) In eclampsia, as in all other cases of kidney failure, ether is contraindicated. Surgical anesthesia is not needed. Chloroform, always the proper anesthetic in obstetric practice, is imperatively proper in cases of eclampsia.

THE SUPERIORITY OF CHLOROFORM AS AN ANESTHETIC IN MIDWIFERY PRACTICE

1897

"It is pathetic to think of how many Boston blushes have been wasted at seeing chloroform used in every other part of the world by men who really seemed in other matters to know what they were about."

THE SUPERIORITY OF CHLOROFORM AS AN ANESTHETIC IN MIDWIFERY PRACTICE

Not long ago, when returning the visit of a recent graduate from one of the best medical schools of this country who had the temerity to settle in this vicinity, I was asked if it is true that it will not do for a physician hereabouts to use chloroform in his midwifery practice. He had been warned by a previous caller that if he did use chloroform he would forfeit the support of the medical fraternity. Of course, it was understood that the forfeiture of professional support would be felt only in case of some awkward coincidence. But as accidents will sometimes happen, and as scapegoats are troublous animals if not thoroughly understood, it is well worth while to examine this particular chloroform scapegoat.

Granted that in this part of the world there has been a peculiar susceptibility to the poisonous effects of chloroform such as to preclude its use hitherto in midwifery practice, what, then, are the geographical limitations of this unfortunate inheritance, and must it last forever?

Such questions, while of little or no interest to physicians whose opinions upon this subject have long since been crystallized, are nevertheless interesting to those still open to conviction. For instance, my young friend already quoted, who has been taught by a most distinguished obstetrician that he should use chloroform, and just how to use it, very naturally is anxious to know how far it is

advisable to disregard this local idiosyncrasy. He is entitled to all the information that can be gleaned from the experience of his new-found brethren.

So far as my own small experience goes, I have already assured him that for the past ten years, at a distance of ten miles from ether's shrine, chloroform has proved itself infinitely preferable to ether in relieving women from the agony of child-bearing. Unfortunately for my present argument, I have not used pure chloroform so often as I have used a mixture of it with ethyl bromide and alcohol. I have to thank Dr. Walter J. Otis, of Boston, for calling my attention to this mixture, which I still think superior even to chloroform in the rapidity of its anesthetic action without sacrifice of consciousness. But this difference is not great, and there is some difficulty in obtaining and in keeping absolutely pure ethyl bromide. So it not seldom happens that I use plain chloroform in midwifery practice. But if by any mischance I have only ether at hand, I feel a sense of shame akin to guilt. For many a time, when my chloroform vial has been drained of its last drop, and I have tried to hypnotize the patient into being thankful that at last she can have lovely ether, have I witnessed her disappointment and disgust. Instead of the instantaneous relief that came from a few deep inhalations of the chloroform, the patient on changing to ether finds that she no longer has time or strength, after the earliest intimation of a coming pain, to inhale enough of the anesthetic to do her any good. As the stress of suffering is upon her she keeps gasping at the

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ether when she should be holding her breath and so giving to the abdominal muscles a fixed thorax to pull from. The usefulness of the labor pain is thus lessened. If she has been steadily inhaling ether during the pain, then by about the time it is over she will be more or less under its influence. Possibly she may sleep during the intervals, but she is more likely to thrash about begging for more ether. There is little use in assuring her she is not just then in pain; her answer is unanswerable, that she soon will be, and then it will be too late to get any good from the ether. If she is smart enough she will simulate a pain so as to scare the etherizer into putting it on before the real pain begins. "Give me more! *give me more!!* GIVE ME MORE*!!!*" prevails and her pains are effectually relieved. Then the end is within plainer sight.

You all know the rest of the story, and can vouch for this synopsis of it: gradual cessation of labor pains; complete exhaustion; mother's pulse 120; fetal heart 160; paternal pulse fluttering; consultant sent for to hear the pitiful story; operative interference plainly demanded; because high forceps and version are equally dangerous, first one method is timidly tried and then the other; perineum torn to sphincter, but fortunately no farther; complete relaxation of uterus and of everything else; alarming post-partum hemorrhage skilfully treated by manual extraction of the placenta and plugging the uterus with iodoform gauze; bruised fetus resuscitated after a half-hour of artificial respiration; tedious convalescence, but eventual recovery; all

concerned more than ever convinced of the wonderful blessing of ether in midwifery; "What did our poor grandmothers and grandfathers do without it?"

If by good chance the laboring woman, in disgust that the ether does her no good, tosses the mockery from her and in her indignation pulls all the harder, then it must be admitted the ether has done no harm. Moreover, in midwifery cases where prolonged surgical anesthesia is required, ether of course has its proper place. But where only partial anesthesia is desirable, ether is a delusion and a snare. Once begun, either it is found to be useless, or if given in serviceable amount the labor is delayed if not absolutely stopped, and all the trouble of artificial labor thus inaugurated.

Small wonder is it that many physicians here in this ether district so dislike to employ the only anesthetic they know anything about, that they actually deliver most of their patients without any anesthesia. Such physicians steel their hearts by making much of the increased safety so obtained. But were they themselves to suffer the pangs of child-bearing, it is doubtful if such beautiful fortitude would be displayed.

I must not, however, forget that my purpose in this paper is not to describe the use of ether in midwifery practice, but rather to call attention to the superior advantages of chloroform.

In the first place, then, it produces partial anesthesia much more quickly than ether, and with less loss of consciousness, and allows a correspondingly

quick recovery from the anesthesia. Not only does chloroform itself act much more quickly, but it can be taken more quickly than ether, because of not irritating the respiratory apparatus, as ether is so liable to do. With chloroform there is none of the choking and coughing that so often retard ether anesthesia.

Let us for simplicity's sake consider the requirements of an ideal anesthetic during only the second stage of labor. In the first place we shall all agree that the anesthesia is desirable only during the height of the pain, that is, during the latter part of it, and is not wanted during the intervals. Moreover, after the pain begins, there is time only for a very few deep inhalations before it is necessary for the patient to apply all of her strength to her work. And, furthermore, the patient's intelligent co-operation is needed in securing the proper application of her voluntary muscular powers.

So closely do the properties of chloroform conform to these desiderata that it might seem as if the requirements of the case and the properties of this anesthetic were especially designed for each other. No such mutual fitness can be shown in favor of ether.

Now, with such a blessing at hand, is it fair to womankind to withhold it from them? Should the unsatisfactoriness of ether prevent the use of a really satisfactory anesthetic?

If there is any other excuse for not easing these pangs with a few whiffs of chloroform, that excuse is probably to be found in the local idiosyncrasy, to

which reference has already been made. Whatever its cause, there undoubtedly is thought to be in this neighborhood a peculiar susceptibility to the supposed poison of this anesthetic. Had ether been discovered in Edinburgh and chloroform anesthesia given its first public demonstration in Boston, perhaps there would not be here such an acute form of chloroform-phobia. But, however that might be, is not this semi-centennial era of thanksgiving for anesthetics a very proper season for inquiring if it be possible, even in Boston, that chloroform now at this end of the century can be used in midwifery practice as safely and as advantageously as it is used everywhere else in the civilized world.

Let us admit that for prolonged surgical anesthesia ether is much less likely to cause the patient's death on the table; and let us waive the question, on the other hand, as to the after-effects of ether being more dangerous than those of chloroform; and let us leave out of consideration the great advantages of the use of chloroform at the beginning when ether is to be used later for maintaining the anesthesia; let us keep strictly to the question of partial anesthesia, repeatedly produced, for the relief of the second stage of labor sufferings. Will any one who has had experience with both dispute the immense superiority of chloroform? Or will any one maintain that there is any danger whatsoever in the proper use of it for this purpose?

In studying the origin, the extent and the probable duration of the local prejudice against chloroform, I must admit having wondered if dense ignorance

as to its proper use deserves consideration as a potent factor. At any rate one need have no hesitancy in referring to this local ignorance, for, as is well known, it is not only generally admitted but is even considered a badge of distinction. Never to have given chloroform except to dogs whose deaths were desired is considered in this vicinity rather as a proof of virtuous conservatism than as a marked deficiency in professional attainment. It is pathetic to think of how many Boston blushes have been wasted at seeing chloroform used in every other part of the world by men who really seemed in other matters to know what they were about.

If it should seem that those poor medical graduates who are doomed to practise in New York or in other outside regions ought to be taught how to use chloroform, even if warned against using it hereabouts, the folly of so thinking is easily shown; for how can the proper methods of administering chloroform be taught where none is used?

The hope of persuading others to make a fair trial of chloroform in such cases, and the hope of drawing from our guests suggestions as to the best methods of administering it, overcome the hesitancy that I, who have had no instruction in the matter, very properly should have in describing my methods of giving chloroform to women in labor.

Before ever the labor begins it is often of no small advantage to be able to answer the prospective mother's anxious question if I surely will give her an anesthetic by assuring her that I always do. Again, when in the wearisome first stage of labor the

certainty that when the hard bearing-down pains begin the anesthetic will be given cheers the patient on as no other possible assurance could. For often it is in the fear that the pains will grow much harder that the greatest torture lies. American women suffer fearfully in anticipation. When the second stage is fairly begun, and the pains are really strong, then I begin with the chloroform. The patient's nose and lips are well smeared with vaseline to protect the skin from possible chloroform blistering. Upon the centre of a handkerchief or some such piece of cloth five to ten drops of chloroform are dropped just before the pains begin. At first the patient herself is taught to hold the cloth over her nose and mouth while inhaling deeply; but as her labor progresses and she becomes well used to it, the cloth is better held by the assistant who measures out the chloroform.

In the relief from the intensity of suffering thus obtained the patient becomes more willing to exert all her strength as directed. She wastes no time in "holding back" her pains; she escapes nervous exhaustion. As the perineum dilates, and as the suffering becomes continuous the chloroform is kept on more of the time; but after every few inhalations the cloth is taken off for a like number of inhalations of fresh air. By pouring on a few drops of the chloroform at almost every such interval, the patient is kept sufficiently anesthetized to escape the agony and at the same time is not made unconscious. In this condition the perineum often can be kept on its natural stretch long enough to

allow the delivery without rupturing. Her uterine and other muscular contractions are not interfered with. The mother just knows when her baby is born, but she remembers no especial pain. She does not afterwards live in terror of ever again going through the same experience.

BREAST FEEDING

1900

"And let us never forget to fight with all our might the falsely alluring patent baby food commercial corporations, whose impudent advertisements ought rightly to be decorated with tiny coffins rather than with portraits of fat-misshapen babies."

BREAST FEEDING

Our most commonplace possessions sometimes get lost. Individually and collectively we occasionally lose sight of truths and facts which were dearly bought in the hard school of human experience. And perhaps the medical profession, in its enthusiasm over new discoveries, is especially liable to forget inherited knowledge. In matters purely medical this tendency to forget is not very dangerous; the new-fangled drugs, after all, may not be much worse than the old standbys. But in the larger responsibilities of medical practice, as, for instance, in the direction of the nursery hygiene, the physician must be very wary of fads.

There never can be any doubt that breast milk is far and away the best possible food for infants. Other foods are valuable in the degree that they resemble this ideal food, and methods of artificial feeding are valuable only in so far as they closely imitate the natural method. So trite are these self-evident truths that it would seem superfluous even to mention them. And yet in practice no other foundation principles need more emphatic reiteration. For among the many retrograde tendencies of advancing civilization, there is none more dangerous than this tendency to shirk the various obligations of motherhood; and during later years there has developed the pernicious custom of cheating helpless babies out of their birthrights by giving them, through false nipples, ingenious imitations of their rightful food.

The causes of this physiological crime are not obscure. The social demands upon modern mothers conflict with their babies' rights. In the log cabin the mother, though slaving single handed for a large family, was not too busy to nurse her children as they came. But the modern mother, with a house full of servants to help her, has not the time to nurse her babies or to take the ordinary care of them. In olden times mothers expected to stay with their babies; nowadays too many mothers expect to be free for outside duties and pleasures, and even for occasional vacations from family cares. Is it any wonder that the gynecologist is employed to treat the subinvoluted uterus, and the neurologist to ward off neurasthenia, while the pediatrist struggles with the hopeless complexity of cow's milk modifications? Indeed, is it not possible that the medical profession is somewhat to blame for the present alarming fashion of the artificial feeding of infants? In this age of specialists, when young physicians are so completely equipped with methods for relieving both mother and child of the pathological consequences of this violation of nature, I, for one, cannot help thinking that the medical profession, instead of stemming the tide, is in reality largely responsible for this wrong drifting.

It is sad indeed if the result of splendid efforts to mitigate the evil effects of the occasional necessary loss of natural nursing is the increase of the evil itself. When the young mother whom Dr. James Jackson had counselled against weaning her baby

triumphantly displayed her bottle-fed prodigy, the good old physician wisely said, "Ah, yes! But your success will lead other babies to their graves."

Among the regrettable evidences of pernicious medical leadership are the prevailing ideas that modern mothers are becoming physiologically unfit to nurse their babies, and that chemists by analyzing pumped-out samples of breast milk can expose its unsuitableness as a food for infants. It is hard to be patient with such presumptuous pseudoscience! How can it be supposed that the chemical analysis of chance samples of a living fluid, which we know undergoes subtle natural changes according to the mother's varying conditions and even emotions, should warrant such a defiance of nature as is involved in substituting for it any howsoever skilfully sterilized artificial food? Of course it is easy to fatten a baby by giving it food richer in fat than was its natural food. But who can estimate by scales and balances the most desirable growth of the child? Or who can supply by artificial incubation the natural human warmth and comfort that a breast-fed baby receives? Doubtless it is possible to train the newly-born to an immediate independence of motherly lovingness, and we will not dispute the skill of modern nurses in making babies behave themselves; but are mothers so relieved any the more willing to bear more children? Certainly not. Nor is it strange that modern women thus defrauded of the loveliest compensations of motherhood, which would have come to them in the natural satisfying

of their deepest cravings, are so anxious to escape all maternal responsibility.

Both for the mothers' sakes and the babies' sakes, physicians are in duty bound to urge the vital importance and the otherwise unattainable advantages of breast feeding. My purpose this evening is to point out how these obligations can be met by calling attention to some of the steps that must be taken.

And first let us consider the question of wet nurses; a most unpopular subject, as we all know. The underlying objections to this time-honored method of feeding infants deprived of their own mother's breasts ought not to be stronger today than they were in days gone by when wet nursing was not so unfashionable, and indeed some of the objections now have distinctly less foundation. For instance, it is possible nowadays with scientific precision to eliminate the danger of latent infectious diseases in the wet nurse that in former times could be eliminated only partially by unscientific opinion. And surely the question of the expense of the best possible nourishment of the infrequent and occasional baby is not a more pressing question than it used to be in the days of normally sized families.

The supply of wet nurses hereabouts is very limited, it is true, but that is mainly because the demand is small. Where working women, in spite of their bounteous breasts, lose their babies, and where it is known that breast milk is in more or less constant demand, it is not so very difficult to arrange their employment as wet nurses. Several

shifts about may be necessary, but whatever trouble is thus occasioned is small in comparison with the benefits likely to accrue to all concerned. The main supply of wet nurses, however, is from the class of illegitimate mothers. Were there less falsely virtuous scorn for such unfortunates it would be far easier than it now is to secure good wet nurses and at the same time to save these girls from future ruination. The common prejudice against letting legitimate babies thrive on the breasts of illegitimate mothers is unworthy of civilized people. Cows are not such moral animals as to warrant their preference over human mothers, whose misfortune is generally due to a combination of their ignorance and over-developed motherliness. Of course if the alternative to wet nursing were for the poor illegitimate mother to stay in some proper home nursing her own child, then there would be no propriety in persuading her to serve as a wet nurse. But that is not the alternative for nine out of ten. Unless persuaded otherwise, these girls will sacrifice their breast milk and for a time they will strive to support their babies in some wretched baby farm, whereas if employed as wet nurses they might earn better support for themselves and their babies, to say nothing of the gratitude and kindly interest which better than anything else will help them to rise above their misfortunes. A larger employment of illegitimate mothers as wet nurses would thus be a great moral as well as a great physiological gain to the human race. And physicians alone have the opportunity to bring about this improvement.

Let us turn now to the physician's opportunities and duties in inducing mothers to nurse their own babies. Much to this end can be done during pregnancy in teaching women what to expect. In this way the prevailing false notions can be offset by explaining the great advantages of nursing and by exploding groundless fears. But before pregnancy and even before marriage women ought to be taught to admire this really most beautiful function of womanhood. Girls should be taught to guard their breasts and nipples from the injury false fashions of dress impose. Better far the present grotesque fashions in dress, which make young girls look like wet nurses, than the opposite extreme of straight dress fronts we used to see and probably shall see again in vogue, which doubtless in past years caused many of the cases of inverted nipples we now have to deal with. Let us be thankful that girls today do not suffer mortification because bountifully endowed. Girls should also be taught that the sebaceous film is the natural and proper protection of the nipple's tip. Pregnant women should be taught to reinforce this coating with cerates, and not to damage the tender skin with alcohol and tannin. There will then be a fairer chance of a painless and naturally easy establishment of lactation.

It is, however, just at this point, when the baby is first put to the breast, that the physician's largest chance of service comes in. His unstinted time and patience are then needed. Many a mother loses her breast milk because the baby is allowed

to chew off the ends of the nipples before the breasts begin to fill. Nursing then becomes an agony instead of the pleasure it is when properly begun. From the facts that the milk does not usually come until the third day, and that about that time is needed for the baby to get rid of its meconium, it might reasonably be supposed that nature does not intend nursing to be begun much earlier. And it is as mistaken kindness to prevent the baby from the exhilaration of crying by stuffing it with food as it is to upset its digestion with cathartics the day afterwards. If the baby is put to the breast for a few minutes only, and only a few times during the second twenty-four hours of its existence, then on the third day the baby will be hungry enough to ease the aching breasts. Were mother and child alone in the woods during these days, the natural process of nursing would undoubtedly stand a good chance of favorable establishment. And in practice it is plainly our duty to follow as faithfully as we can natural methods.

After turning the mother well on one side, and placing under her body some support so that she will not lie on lower level than her baby, then it is well to leave them alone together. If the baby will not take hold, it may be well to start the milk running by gentle coaxing manipulations. This is the physician's business unless he is perfectly sure of his nurse's knowledge and ability. Breast pumps, it must be remembered, are dangerous things, and interfering husbands and ignorant friends are worse. One of the greatest helps when the breasts

fill to uncomfortable heaviness is the "double Y" bandage invented in the Boston Lying-In Hospital. It is right in principle and serves beautifully in practice, but great skill is needed in applying it, and so the abominable straight-jacket bandage still is too often used.

In caring for the nipples of the nursing mother great harm is often done by mistaken methods of cleansing. Nasty-tasting lotions are often applied by stupid nurses, who then wonder why the babies hate to take hold. No washes are allowable. Olive oil or lanoline should be used instead. And then for a protecting dressing tallow and beeswax or the raw white of egg should be freely employed. Cracks and excoriations will then be astonishingly infrequent, but if either torturing accident occurs immediate attention is demanded. After thoroughly disinfecting with boracic-acid lotion (5%), and anesthetizing with cocaine, the crack and raw surface should be treated with a 10% solution of silver nitrate, then dried by pressure of absorbent cotton and painted over with egg albumin. For the next few nursings a glassbell nipple shield should be used. Thus by scrupulous care mothers can be saved from tortures that they too often suffer, and then it becomes far easier to persuade them to continue nursing their babies in accordance with the design of the Creator.

If the baby does not thrive, and some modification of its food seems desirable, before weaning and attempting with the chemist's help to improve upon nature, it is certainly incumbent upon the physician

to try in every way to better the mother's milk by building up the mother. This often can be done by bettering her conditions, by not keeping her in bed so ridiculously long as too frequently is done, by getting her out into the open air, by allowing a more generous diet, by saving her from every other fatigue than the natural and milk-inspiring company of her baby. And let us never forget to fight with all our might the falsely alluring patent baby food commercial corporations, whose impudent advertisements ought rightly to be decorated with tiny coffins rather than with portraits of fat-misshapen babies.

OBSTETRICS IN GENERAL PRACTICE

1911

"That is a great thing, to make a corner in this world a lovely place to be born in."

OBSTETRICS IN GENERAL PRACTICE

Some years ago I reported to this society three series of two hundred midwifery cases. As a basis for this paper I now report five hundred additional cases occurring in my practice between Aug. 8, 1894, and March 12, 1909. I shall not venture to tabulate the dry statistics of the duration of the different stages of labor or of the fetal presentations and positions, as I did with my first six hundred cases. And yet, without more than passing reference to the normal cases, using them merely as a background for the description of what is abnormal, no idea could be given of the ordinary midwifery practice of a general practitioner.

In my clinical records I have made note of every deviation from the normal, and of all unusual occurrences. But what, we may well ask, is the normal? If the woman delivers herself, without any interference by physician, nurse or neighbor, and without any harm to herself or her child, then of course the case can be classed as normal, or at least as *accouchement au naturel.* Here is an illustration: Mrs. M., age thirty-three, according to her own story, began her tenth labor with three hard pains. She went downstairs and had four more pains, when the waters broke; then she went upstairs and had four more and found baby and placenta on the floor. Before I arrived she had tied and cut the cord. There seemed little left for me to do.

But unless the woman in labor takes to the woods, as in fact one of my patients did, she can

seldom escape having her labor assisted; and such assistance is more or less an interference. Take the management of the third stage of labor, for instance. The old practice was to leave the placenta to come when it pleased. After several days of waiting, if, as occasionally happened, it showed no signs of coming, then, perhaps, something was done about it. I remember such a conservative reluctance to interfere with Dame Nature, we can but admit that in the customary hurrying of the third stage by Crédé's method, which, by the way, is much to our own convenience in letting us get away, our patients occasionally do lose more blood than they should. What danger is there, then, in non-interference? None, I believe, and I wish I were able to back up my belief with more than a very few of my cases where the patient delivered herself of the placenta. In none of these cases, however, was there any trouble. The woman already referred to, who, when in labor, took to the woods, the next day walked a mile back into town carrying her baby in arms, and was not delivered of the placenta until she had been put to bed eighteen hours after the birth of the child. There was not the least drawback in her recovery. Nor was there in an earlier case where the illegitimate mother hid her dead baby, and the next day journeyed to another state. Two days afterwards I found her in the police station, after a hundred miles of traveling, with the placenta still undelivered.

It is not my object, however, to decry the Crédé method of hastening the third stage of labor just

because it is of such convenience to all concerned, I want to point out that it is a distinct interference with nature and, therefore, should be subjected to most critical scrutiny. In my previous reports it seemed likely that the cause of the unusually large percentage of postpartum hemorrhages which occurred in my early practice lay in hurrying the delivery of the placenta. And this likelihood was increased by my being able afterwards to report a smaller percentage of hemorrhages and a correspondingly longer average duration of the third stage. But now, on the other hand, in this series the average duration of the third stage (nineteen minutes) is no longer, and yet the occurrence of post-partum hemorrhages has again decreased from 6% in my best previous report to 2% in this series. Setting aside the cases of placenta previa, there were only ten cases where as much as a quart of blood was lost. In four of these the hemorrhage followed instrumental delivery under anesthesia. In the remaining six cases the duration of the third stage was thirty minutes in one, fifteen minutes in three, ten minutes in one, and in one not noted. Happily no serious consequences followed beyond a retarded convalescence.

I believe that my better showing in this respect is due to having taken care that the uterus should be firmly held, for a longer time than I formerly thought necessary, before "fixing up." One hour of absolute rest after the baby's birth, or at least one-half hour after the delivery of the placenta, is none too much of a precaution. The only other change

in my procedure has been the discontinuance of ergot, in which I have lost all faith. When not needed, it undoubtedly provokes uterine contractions; when needed, it is, in my opinion, worthless.

This discussion of the third stage may seem to be beginning the study of my cases at the wrong end, but it allows a sharper definition of my use of the word "normal." Except for this acknowledged interference with nature in the third stage of labor, 54% of my cases are definitely recorded as normal, and in 16% more I have recorded nothing to the contrary.

Although in these 350 cases I have found no unusual occurrences in either the labor or convalescence, I am not yet ready to dismiss them from consideration. For I am persuaded that excellence in the art of midwifery, even if not in obstetric science, still depends very largely upon the management of the normal case. And I confess to some disquietude of mind over the practices advocated now-a-days by the progressives, if I may so designate our brilliant obstetric specialists. But what is more presumptuous than for a general practitioner to criticise the specialist! It is nothing less than a complete reversal of their respective functions. Nevertheless, in reporting one's work, even if there seems to be some defiance of modern canons, it is necessary to describe one's methods.

To begin, then, with my confessions: in my visits to pregnant patients, even if primiparæ, I have not invariably measured their pelves, their intra-uterine progeny or their husbands. Of course I have collec-

ted such data, or some of it, where there was no reason, beyond the supposed necessity, in the patient's mind, for so doing. Fashions are infectious.

In the immediate preparation for the labor of my patients, I have so often been forced to strictest economy that I have become accustomed to doing without, and, indeed, to considering superfluous, much that I find some families acting under other advice, have provided. I have taken comfort in recognizing that after all the bringing forth new life into the world, instead of being a sickness or a cataclysm, is nature's most natural process, and that the very most I can do at such times is to help and not hinder. I have, therefore, tried to simplify rather than complicate the family enlargement problem. To this end I have given much time and strength to the training of nurses for this special service. And I have found that nurses properly taught are of immense help at such times to the physicians, the family and the patient. But I protest against some of the fads I find nurses being taught nowadays. For instance, it is abominable to shave the patient before or during her labor, as if for a serious surgical operation. I must not, however, while describing my own methods, criticise others. And yet I want to emphasize the advantage the family physician has over the specialist in his obstetric practice, in keeping childbearing in true perspective, in maintaining its ordinary matter-of-course character. Of utmost importance is it to ward off from the expectant mother all anxiety and foreboding. Let me not be misunderstood. My own list

of disasters is too long for me to ignore the dangers incident to childbearing, or to counsel the accoucheur even to forget their immanence. But these fears should never, directly or indirectly, reach the patient. And the excessive precautions and the extensive preparations now fashionable most certainly do tend to frighten pregnant women and to deter them from subsequent childbearing.

The management of the first stage of labor I have almost always entrusted to the nurse. In no other way would even a moderate obstetric practice be possible for the general practitioner. And, fortunately for him, such service can be performed by the nurse better than by any man. Not only the cleansing enema can be better given by the nurse, but also the needed cheer and comfort and reassurance. True, the physician who relies upon either his own guesswork or upon his nurse's judgment as to the probable hour of the delivery will sometimes miss being on hand. But where the child comes into the world expeditiously, a properly trained nurse can manage the delivery well enough and also give first aid in emergencies. At any rate, in my practice I have found no harm resulting from leaving the care of the first stage to the nurse. Where the babies have been born before my arrival there may have been a slightly larger percentage of perineums to repair, but probably not larger than in cases of similar precipitancy where I was in immediate charge.

When I remember how much I have tried to do for my patients in the second stage of their labors,

I am again compelled to apologize for my use of the term "normal" in reporting these 350 cases where nothing unusual happened. The fact is I have been constantly trying to learn how to give most help. In the matter of posture, for instance, I have urged my patients to take whatever posture they wanted. So some have been delivered while lying on their sides, or backs, and some while on their hands and knees, and some while sitting on the edge of the bed, as is the custom among the Appalachians. When no progress is being made, I have found it a good plan to urge radical change of posture.

With few exceptions I have given an anesthetic to dull the suffering from second-stage pains. For this purpose ether is contra-indicated, except in Boston. Chloroform is much better, but not so serviceable as a mixture of it with ethyl bromide. But I need not repeat my opinions upon this particular.

In trying to help on the progress of the delivery I have, of course, often dilated the cervix, flexed the baby's head and rotated it into more favorable position. I do not know how much physical help has thus been given, but I am sure that many women have been very grateful for these efforts, and also for the hot fomentations I always apply to the stretched perineum, thereby, I am sure, increasing its elasticity. But I have never found a patient appreciative of my holding back her baby's head in order to secure safer dilatation of the ostium vaginæ. It is just then that an anesthetic

is of greatest service, in thus allowing the delivery of the head between pains. I am satisfied that such is the easiest way for the mother as well as the safest for her perineum. So much for my normal cases.

Of the remaining 150 cases, many have been kept out of the normal class for trivial causes. For instance, in 57 of these cases there is record of perineal laceration; but in 51 the laceration at most did not extend more than halfway to the rectum, and in some cases only a single catgut suture was required. In 2 cases the tear reached the anal sphincters and in 4 cases went through them: these were hard forceps cases. In 5 cases twins were born. This, to be sure, ought not to be considered abnormal, but it relieves the monotony of ordinary midwifery work, and sometimes demands much of the accoucheur. I shall refer to one of these cases later.

In 3 of these cases, one of the twins presented as a footling. And of the single pregnancies, in one case the hand presented, in 3 a foot, and in 5 the breech. In 5 other cases podalic version was performed. So I have in all 17 babies to account for who came into the world feet first. Four of these were stillborn, and one, an eight-months' fetus, died the following day. One of the four was a two-pound premature baby, one had no pulsation in the cord when I first examined, but 2 died because of the difficult delivery.

I dread breech deliveries more than I used to, and so I find myself employing axis traction forceps,

where formerly I should have done podalic version, especially in cases of occiput posterior.

In 33 of my 500 cases the fetus was in this unfavorable position, O. R. P. in 30 and O. L. P. in 3. In only 8 of these was the labor terminated without assistance. In one, where the cord prolapsed, I delivered by podalic version. In 21, after rotating the occiput forwards, I delivered with forceps. Once I brought the head down to the vulva with the occiput posterior, and then rotated it forwards and reapplied the instruments. Once I pulled the head through face under the pubic arch, and once the baby was thus delivered by the unaided mother. Three of these occiput posterior babies were stillborn; in one the cord was not pulsating when I first examined, but forceps delivery had been previously attempted by the physician attending; in the second, though after delivery the heart beat feebly for a few minutes, the epidermis rubbed off easily and there was much meconium in the liquor amnii from the first escape of it; the third died from the delivery, apparently from strangling by the cord around its neck.

With such experience it is natural that I should consider a posterior position of the occiput as a really serious complication. And in view of the almost certain prolongation of the woman's suffering, and of the great probability of her having to be operated upon eventually, I believe it best to rotate the occiput forwards while the head is above the brim, and then, if it does not so engage, I believe

high forceps should be applied, and, of course, axis traction.

Besides these 21 cases just mentioned, I delivered 32 others with the forceps. Only one baby was stillborn. There had been no motion felt for two days, as I afterwards learned, but it is not unfair to assume that the child died during its exceedingly difficult delivery. Here are my notes of the case:

Mrs. B., thirty-three years old, a very stout but muscular woman, had been in labor, with at most hour intervals, for three days. I had delivered her safely twice before. After tremendous pains she brought the head to the inferior strait, in O. L. A. position, but could do no more. With forceps, which slipped off several times, I finally succeeded in delivering the head. I had even more difficulty with the shoulders, and broke one arm. The girl baby, stillborn, weighed 10½ lb. The next year I delivered her safely. But I suppose in the management of this case I am liable to the charge that I should have known the baby was too big for any delivery except by Cæsarean section. However this may be decided, it is the only one of my 500 cases where, even in the light of results, I think I ought to have elected that operation *at the time I was first called in.* Sometimes I have wished that I had been called in earlier, as, for instance, in the case of Mrs. H., a stout, muscular woman of forty years, whom I first saw when she had been in labor for four days. She said she had been delivered twelve years before of a dead child. Her pelvis measured between the iliac crests 8½ inches, anterior superior spines 7 inches, troch-

anters 11½ inches, and the external conjugate 6½ inches; evidently a justo-minor pelvis. No fetal motion had been detected for two days. The os uteri was half dilated and easily distensible; the liquor amnii had all escaped; the head presented, very boggy. On passing my hand into the uterus, the very large fetus was found to be dead. Podalic version was easily done, but so small was the pelvis and so large was the child that, after one leg was delivered, it was only with greatest difficulty that the other leg was brought down. After an hour the hips, and, after still another hour of tremendous tugging, the shoulder were delivered. During these efforts the cervical vertebræ were dislocated. Of course this fetus should have been dismembered, but my instruments for this operation were twenty miles away. When I got them the head was delivered after craniotomy.

The chances of successful issue from a second pregnancy are, of course, largely dependent upon the results of the first. Where the first child is lost, in spite of all operative attempts to save it, a second pregnancy of course occasions serious misgiving. I am afraid that physicians, after failing to deliver a living child, too often have been at fault in warning such families against future pregnancies. This is ignoring the better chances in second pregnancies, as well as all possible expedients.

In September, 1902, when called in consultation, I twice failed to deliver a primipara of a living child, and in both cases in their second pregnancies I succeeded. Here are my notes:

Mrs. C., thirty-seven years old, stout and muscular, had been in labor twelve hours. The pains had slackened; the head presented O. R. P.; the cervix was only partially dilated; the cord found to be pulsating slowly and feebly. I at once dilated the cervix, performed podalic version and with great difficulty succeeded in delivering a large stillborn child. In applying forceps to the after-coming head, I made the mistake of inserting beneath instead of above the child's body, and so lost time. But I have never seen a breech-delivered child live after such hauling as was necessary. After the mother's recovery, I found on careful measurement no reason why she should not be safely delivered. The impediment in the first instance was the unyielding inelastic soft parts, not the pelvic size or shape. Fifteen months later I had the joy of delivering her safely.

The second of these patients, Mrs. R., thirty years old, had been in the second stage of labor for several hours when I was called in. Forceps had been tried in vain. I found the head presenting in O. R. P., the cord pulsating. After rotating the occiput forwards I succeeded, after very hard pulling, in delivering a 10-lb. dead boy. Her pelvic measurements were not out of the way, and I willingly agreed to help again if needed. That time, at the end of twenty-four hours her pains had become good for nothing, the position was favorable, and my axis traction forceps (or rather Dr. Friedman's, which I value exceedingly) went on easily, and after

hard pulling I delivered a 7-lb. girl. Both times the perineum was torn through the sphincter ani.

In deference to the present fashion of delivering by abdominal section, some apology is perhaps due in reporting even successful cases of delivery *per vias naturales,* where the conditions would have warranted more up-to-date methods. But when one is off many miles from his base of supplies and from his colleagues, he naturally hesitates in explaining to the family the inestimable advantages of a Cæsarean.

Here is a case where perhaps I need not have come so near breaking my own back.

Mrs. K. admitted twenty-nine years. She had had a miscarriage in the shady past. After eighteen hours of labor the os uteri admitted only two fingers. Pains were almost continuous. Under anesthesia I dilated the cervix. And then after three hours and no engagement of the head, I applied forceps and with great difficulty delivered a 10-lb. boy without lacerating the perineum. But the mother suffered excruciating pain in the left hip and pubic arch for a long time afterwards, and also from incontinence of urine. She would probably have made a better recovery had she been delivered by more modern methods.

In spite of the opposition of the specialists to the premature induction of labor, where the pelvis does not allow the passage of a full-term child, nevertheless it is an operation that will continue to be done by general practitioners. Here, for illustration of its usefulness, are the notes of three successful deliver-

ies of Mrs. C. by this method. She was thirty-three years old, and in childhood had suffered from hip disease, resulting in complete ankylosis of the left hip joint. Her pelvic measurements were, between iliac spines 8 inches, crests 9 inches, tuberosities 3 inches, trochanters 10 inches, external conjugate 7 inches, internal diagonal conjugate 5 inches. Five weeks before the date of her expected confinement she was admitted to the Waltham Hospital, where labor was induced by the insertion of bougies and then Barnes' dilators. After several hours of ineffectual labor, the cervix was dilated manually and the child, a 5-lb. girl, delivered with, I must acknowledge, considerable difficulty, but both mother and child did well. Exactly one year afterwards the same operation was repeated, with the same happy results, the only complication this time being the bad laceration of the cervix which required immediate repair. Four years afterwards Mrs. C. came to the hospital for the third time, and again after the same treatment she left with a girl baby. She and her three vigorous daughters have thriven ever since.

Peculiarly ungracious must it seem to report a case where the woman, already on the operating table, under full anesthesia, ready for the knife, was delivered in the old-fashioned way. But here are my notes: Mrs. J., thirty-one years old, had borne three living children. After the third she was operated upon in the Boston Homœopathic Hospital for repair of perineum and cervix and for ventral suspension of the uterus. These operations were done

all right, for in her next pregnancy when again in labor her family physician could not find the os uteri, nor could a consultant summoned for the purpose. So she was brought ten miles to the Waltham Hospital for Cæsarean section. She had been having indefinite labor pains for ten days. With great difficulty I succeeded in entering the vagina with my whole hand, and then in finding the half-dilated os uteri further up and further back than would be believed possible. The child lay crosswise, its back anterior and its head to the left. I succeeded in doing podalic version and in delivering the child, a poorly developed boy who died a week after.

Eclampsia appeared or threatened in ten of my cases. In four there was a spontaneous miscarriage; in one, an epileptic, after a severe convulsion, a dead premature fetus was born; in one the threatened convulsions were averted and after a normal labor a 5-lb. girl was born; in two, after manual dilatation and delivery by podalic version, the premature child was lost; in two by the same method two were delivered alive. All the mothers did well. Here are my notes of two of these cases:

Mrs. B., twenty-six years, had gone through her previous pregnancy all right. This time, six weeks before she began her labor, noticed dimness and blurring of vision, her feet and legs were swollen, and her urine was scanty. She could not read and once had headache. She was treated vigorously with diuretics, and as the amount of the urine increased the edema left her. Her labor was normal and her recovery uneventful.

Mrs. E., thirty-four years old, began her first labor at midnight March 1. In the early morning of March 3 the cervix was fully dilated but the head was not engaged after several hours of hard labor. She had been passing urine freely, and it was free of albumin on Jan. 1 and Feb. 1. Suddenly she suffered a severe convulsion. The only warning we had she gave to her mother, shortly before, telling her she saw stars. I at once delivered her, with high forceps, of a 9½-lb. boy. She had no further trouble.

There were three cases of placenta previa. The three babies lived, but, alas, two of the mothers died and both left large families. I ought perhaps to include a fourth similar disaster, where, although I did not myself operate, I stood by advising a younger colleague. But if I should do that, I ought in fairness also to include a fifth case where I stood by giving advice where the mother was saved. As I am determined to be my own severest critic I report in detail my mistakes and failures, without excuses.

Mrs. N. consulted me in May, 1898, because she had been flowing, although only eight months pregnant, and because she had heard the week before of the death of a neighbor from placenta previa. She knew I had assisted in the delivery of that woman and that I had blamed her family for not having notified their physician of her previous hemorrhages. For Mrs. N., I made all possible arrangements. At a meeting of this society I anxiously asked advice. The only new suggestion then was to ligature the uterine arteries if nothing

else would stop the hemorrhage. When my patient sent for me in June, she was flowing slightly and her labor had begun. The placenta was central, and as the labor advanced there was considerable hemorrhage. With all the advantage of an operating table, able assistants and every possible provision in the way of instruments and materials, I dug through the placenta, did podalic version, delivered a living child, and then saw the mother bleed to death in spite of everything I could do. The uterus never showed the least sign of contracting. Packing it was useless. And my deep sutures were tied round the uterine arteries too late. In this case, of course, for the mother's sake I should have endangered the child by waiting for its natural delivery after the version. That is all very well in theory, but, after the placenta is dug through, and, of course, almost entirely detached, not to draw the child out of danger requires more nerve than I possess. If exactly impartial regard had been given to both lives, then the delivery would have been by Cæsarean section, which alone allows perfect control of the uterine arteries and may so prevent their awful outpour.

In my next case, in spite of my determination never again to employ the same methods, I did just that. But I was caught unawares. Mrs. W., thirty-eight, I had delivered three times previously. Until an hour before I was summoned she had not lost a drop of blood, but in that hour she had lost a lot. I found the vagina full of clots, the os uteri half open, the pains coming fast. I did not dare with-

draw my hand, so much blood followed my first examination, but, instead, while hunting in vain for some lateral chance, I detached the placenta. There was then nothing to do except deliver it, and get out the child, which fortunately presented by the breech. I packed the uterus with towels soaked in hot 2% acetic acid. I dragged out the cervix, which was lacerated up to the vault, and stopped the spurting arteries with tendon sutures. About three pints of blood was lost during the operation, and I judged about as much before. Except for the sutures in the cervix I do not believe the mother would have lived to care for her 8-lb. daughter.

My third case was Mrs. W., thirty-nine years old, in her fifth pregnancy. I had delivered her in her first with high forceps, of a 9-lb. girl; in her second in the same way of a 10¼-lb. boy; in her third, also with instruments, of a daughter; and in her fourth confinement, of twin boys. I nearly lost her then. She was eight months pregnant, very sick with the grippe, suffering from headache and uremia and almost constant uterine contractions; her condition seemed so alarming that I decided to deliver her. I dilated the cervix, and finding a fair-sized head presenting O. L. A., I applied forceps but could not deliver it. On further examination I found a twin's head locked under the first fellow's chin. After pushing him back, the first was easily delivered, a boy of 7¼ lb. There was considerable hemorrhage, and, after the second boy, also of 7¼ lb., was delivered with forceps, face under the pubic arch, the hemorrhage was alarming. We could not get hot

water because the father of the child had collapsed in the bathroom, where he lay on the floor vomiting and purging. At one time it seemed to both nurse and physician unlikely we might save even the old man. But all pulled through. And now to return to my notes of the poor woman's fifth pregnancy, two and a half years afterwards, during which, as I afterwards learned, she had had many slight hemorrhages. On the seventeenth of June, 1907, she was taken to the Waltham Hospital, having had a serious hemorrhage the day before. She was very anemic. June 20 her labor began. The pains were severe that night and there was some flowing. In the morning the os uteri admitted two fingers, and the placenta previa was found laterally attached. The cervix was dilated manually, and the large boy baby safely delivered by podalic version. The loss of blood would have been large even for one who had a good supply. The bilateral lacerations of the cervix and the lacerated perineum were sutured, and there was no further hemorrhage, but she died eight hours after her delivery. She complained of great abdominal distress which was not accounted for. There was no autopsy. I have since questioned if the uterus was not ruptured. In the following case it certainly was.

Mrs. S. had had many children, all easily enough. But one fine morning while in labor she fell to quarreling with a neighbor out in the yard. She fell to the ground, screaming with pain, and with greatest difficulty got back into her house. Her family physician, recognizing that she was doing

badly, sent her in to the hospital, where, after several had seen her, I was finally called in consultation. She was then nearly comatose, surface cold, pulse thready and not countable at wrist. The only history available was that she had been complaining of severe and continuous abdominal pain. There was a slight bloody discharge from the vagina, the os uteri admitted my half hand, but the child could not be found. The diagnosis was plain. And the patient was hurried to the operating table, where my colleague, Dr. H. A. Wood, opened the abdomen. There was immediate escape of blood and clots. The child's head was found protruding into the abdominal cavity through a side rent of the uterus which was afterwards found to extend through the broad ligament so as to bare the pelvic bones. The dead child was pulled out and then the whole uterus removed. Her recovery was tedious but complete.

I have reserved for the last my two most shocking disasters, two cases of death from pulmonary embolism. In my previous reports I had also the same misfortune. Four such deaths in 1,100 cases must be unusual. The question is, were they preventable? I cannot claim that I recognized the danger as I should to-day, which means that proper precautions were not taken.

The first case was a primipara, Mrs. H., nineteen years old, who was normally delivered of an 8-lb. daughter in February, 1899. For the first week she did very well and then began having irregular chills and fever. I could find no cause for it. Her only complaint was of pain in the left leg and thigh.

There was no sign of phlebitis. For several weeks this condition continued, and then before the fever or the pain wholly left her I made the mistake of letting her sit up. A few days after, while sitting in her chair reading the newspaper, she suddenly screamed, turned black, and died, before the nurse could call for help even from the household. The autopsy showed a thrombosis of the left iliac vein and an embolism of the pulmonary artery.

My second case, Mrs. L., aged thirty-three, was a dear friend and neighbor whom I had previously delivered five times. After twenty-four hours of ineffectual labor I completed the dilation of the os and, finding a hand presenting, delivered by podalic version a 9-lb. boy. Both mother and child seemed to be doing very well, except for a slight unexplained fever in the mother and some pain in her left thigh. I did not mean to let her sit up, but carelessly had allowed her to use the commode instead of bedpan. On the fifteenth day, when sitting there, she shrieked that she was dying and turned black. A few minutes afterwards I found the faithful nurse performing artificial respiration on the corpse. There was no autopsy, but there cannot be any doubt of the diagnosis. The lesson of it is that in cases of pain in thigh or leg, where even slight fever is present, we should suspect trouble in the iliac veins, and employ the same precautions as in phlebitis of the femoral.

PAST AND PRESENT METHODS IN THE PRACTICE OF MEDICINE

1912

". . . they knew vastly more about their patients, and so far more of the healing art than is generally known today,—more's the pity."

PAST AND PRESENT METHODS IN THE PRACTICE OF MEDICINE

A third of a century ago it was commonly remarked that medical science had not kept pace with the advance of other sciences. It might then have been hard to disprove the allegation, but no such charge would now be made. For within recent years there has been a rapid succession of brilliant discoveries regarding the causation of diseases. And already much has been learned regarding the destruction of disease-producing germs.

Many of the most dreaded diseases are accordingly in rapid progress of extermination. It is practically certain that the time of great epidemics in civilized countries is past. And just as surely many of our endemic diseases, such as typhoid fever, diphtheria and tuberculosis, might be exterminated. Only the scientific application of knowledge already ours is needed to rid civilization of these pests.

These facts regarding the wonderful progress of medical science are well known. But not much has yet been said about the great change that the medical profession itself has meanwhile undergone. The subject needs attention.

Let us first bring into view the typical practitioner of forty or fifty years ago. In some of the villages, and in old-fashioned corners of our cities, physicians can still be found who are practicing in much the same way that they began, and, indeed, in much the same way that their predecessors began to

practice. For in their youth they learned the healing art as apprentices, which, in spite of present methods, is really the only way any art ever can be learned. These old-fashioned doctors do not begin to know as much about diseases as second-year medical students now know, but even when they left the employ of their preceptors they knew more about patients than many medical graduates of today ever will know. For in the formative period of their lives they had far greater opportunities for acquiring this art than the modern medical school affords.

If you have not known this passing type of family doctor, and if you are incredulous of his existence, follow one whom I will select for you on his daily rounds. Do not laugh at his old buggy, nor at his rough-haired horse. Like the doctor himself, and like his well-worn clothes, they have seen better days. For his practice is not so lucrative as it formerly was. The younger doctors in their shiny automobiles have taken away many of his paying patients. The specialists have taken most of the rest. Nor do those unable to pay even his small fees in money pay him in kind as they used to do. And, after he has paid for fuel and food and provender and his excessive taxes, he has little enough for personal embellishment.

Do not judge by appearances. Study rather the man himself. Come in with him into this cottage where the anxious mother is worn out by long bedside watching. Her daughter, till lately her sole support, is plainly nearing the end. Too well they

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both know it. They have no need of a scientific diagnosis or prognosis. Little is there in that sick room to interest the student of disease. It is only a case of common consumption. But just watch the old doctor. See how slowly and quietly he seats himself by the bedside, how carefully he feels the pulse, which still means far more to him than does the temperature. How carefully he inquires how she has slept, and if she has managed to swallow the extra eggs he has been urging. Then see him gravely nod his head in regretful assent to her complaints, and listen to his skillful emphasis upon all the little favorable details in the story of the past night. He does not thump or even stethoscope the wasted chest. He makes no objection on sanitary grounds when the mother to hide her emotion fondly kisses the sufferer. Has he all day to spend there? He shows not the slightest impatience of the passing time. He knows far too much of human cravings to take out his watch or tell of his hurry to reach another patient. For the time being this one has all of his devotion. She feels it. His visit cheers and comforts her. Nor is his mission fulfilled the moment he leaves the sick room. His thoughtfulness for the poor mother prompts him to tarry in the garden as he bids her rejoice in the clear air which "surely will make her daughter's coughing easier." He leaves no drugs, he writes no prescriptions. Quite useless are his visits from the scientific standpoint, useless, indeed, in his own estimation, and yet he goes there day after day without so much as ever entering his visits in the ledger. Profitless

practice this, according to modern estimation, but it is what he was taught to do. Never yet has he deserted a dying patient on the miserable excuse that he could do nothing more.

But now we must hurry if we would follow him. His plan was to make all the visits needed along this road, but an imperative call has come for service in an opposite direction. And his life habit obliges him to inconvenience himself even upon the chance of being needed. Often it is a false alarm. So it is this time. A boy had fallen from the cherry-tree. The neighbors thought him killed, but it was only a stun and as soon as he caught his breath it was evident enough he was living. But his crying is hushed as the old doctor drives hurriedly into the yard. "You were quite right," he answers the mother's apologies, "to send for me; you were, of course, terrible frightened, and it is far better to have the child thoroughly examined." The boy is immensely relieved to see the doctor come in,—the old doctor who always gives him a smile as he passes. Not that the doctor remembers his name, any more than he can remember the names of the thousands of other children he has helped into the world, but there is nevertheless some bond of sympathy between them, and the boy feels it. His faith in his doctor is absolute. Without a murmur he lets him pull off the little jacket and trousers, when only a moment ago he was screaming if they tried to move him. And after the doctor has gone the little fellow will fiercely resent any omissions or changes in the treatment ordered. Everything the

old doctor did and every word he said the boy will remember. And later when sick or suffering, if he cannot himself go to the doctor, he will demand a visit from him. Many a call comes to the old man both by night and by day "because the child would have the doctor sent for."

The morning's rounds have been interrupted by this episode, and now we can follow him in some of the visits he started out to make. But notice that before he leaves this neighborhood he asks after several of his former patients. "Has your husband found work yet, or is his rheumatism still preventing him?" he asks of a sad-faced woman standing in her doorway. "Is your mother comfortable these days?" he asks of another. And reining up as he meets the fishman he inquires if "Mary is doing well."

As we drive with him into the factory village one well might hesitate to enter the dirty tenements. For the day is hot, and even outside there is little comfort in breathing. The kitchens are fearfully close. In one there is a desperately sick baby. The ignorant mother is doing her best, but between washing and cooking for her large family she has little time to brush away the flies or even to scald the nursing bottles as she has again and again been told she must do. More discouraging conditions could not be imagined. What earthly use is there in giving directions that will not be followed? Why, then, does not the old doctor give it up? That is not his way. Just listen to him as he tells the mother she does not realize how sick the baby is, and that

funerals cost more than proper nursing. Is this the same man who an hour ago was cheering the consumptive girl's mother? Yes, and his purpose is the same. He knows how to get the most help for his patient. In this case, only by blunt exposure of the danger can he rouse the stolid, discouraged mother into action. After her crying is over she begs for help and promises to obey the orders. The baby's chances of recovery are bettered because it will be better cared for during the next twenty-four hours. Out of loyalty to his profession, in obedience to his conception of the physician's duty, the old doctor forced himself into that stifling kitchen, triumphed over his discouragement, and, in his intense desire to help the helpless baby, he deliberately stirred up the mother's anxiety, and then, seizing the psychological moment, he impressed upon her his directions. He is himself pale and wearied as he comes out. Nor is it wholly because of the heat and closeness of the kitchen. That is his own diagnosis as he mops his wet brow. But really he is half faint from intense exertion. He has given himself, his whole strength of mind and heart, and the exhaustion of it is tremendous.

Can it be that the old man's strength has been transferred to the mother and that she in turn can transfer it to the wee life that hangs in the balance? Could any idea be more unscientific?

But we must not stop to analyze, for already the horse of his own accord has stopped at a shabby house. Not a moment is lost. The sadfaced widow herself opens the door. Everything is ready, so as

to save the doctor's time. For years, ten or more, he has made this semi-weekly visit to dilate a rectal stricture. Except for his faithfulness, she long ago would have died. True, she would have been saved much agony, but her two children would not have had the modest home her incessant needlework has maintained for them. No one would have known about all this had not the old doctor in his pneumonia the winter before begged the young physician, who took care of him and his practice, to go on with this service to the widow in case he should not recover. "And please make no charge," he added. "She has more than she can bear." No words are wasted. The dilatation is done. The widow in spite of her tears smiles gratitude, and the old man hurries away.

The forenoon has more than gone. He does not mind that his dinner must be only a warmed-over affair; he is well used to that. But he is worrying to have kept his office patients waiting. Who are they? The first to shuffle from the old parlor waiting room into the little box-like office, which years ago was hitched on to the house, is a seedy, broken-down young man. Dissipation and poverty have made sad havoc. Now that his health has gone he appeals for help, and not in vain. For the doctor listens to the dismal story, gives him some medicine and only casually adds the warning that while taking this medicine not a drop of liquor must be drunk. "If you at any time feel that you must have a drink, come here to me for it." This he always says to drunkards. Sometimes it works, as no unsympathetic

scientific treatment ever will. And, however hopeless to others the drunkard's disease may be, the old doctor never despairs. Why should he? Did you not on this morning's drive see the fishman greet him? Well, he was once a drunkard. He first came to the doctor to have his scalp sewn up after a drunken brawl. By the time that was well he had consented to work for a farmer for his board. For many days he was too weak to be of much use, but the farmer owed the doctor a heavy debt of gratitude and so for the doctor's sake he kept encouraging the drunkard. The priest also helped. And when the year of pledge was nearly ended the doctor kept his man in mind; a small loan helped him to a handcart fish route. That was years ago, but never a drop of liquor has the man since drunk.

The next patient in the office hastens to say she has not come for professional advice. She wants to find work. Her husband brings back only a pittance of his wages, yes, and beats her when she can give him no meat for dinner. Does she tongue lash him? the doctor asks. "Yes, who wouldn't?" Then he tells her the old story of the wife who tamed her brutal husband by holding holy water in her own mouth. Does she ever herself drink, he asks. And then, taking full advantage of her discomfiture, he encourages her to try once more, and still again, to make her little home more lovely and attractive, to do the work in it that she would do for hire in other homes. He has seen wives win by this method, he tells her.

Now comes the richly dressed lady who has not

concealed her impatience at having to wait her turn. Volubly she rehearses her symptoms. One would think she was the greatest sufferer on earth. Not only are all of her vital organs out of order; her maid has given notice, and that, too, when all of the next week must be devoted to the dressmaker. No one gives her help or even sympathy. As for the last medicine the doctor gave, she positively could not swallow it and, when she did, "It made her worse." In vain the old man tries to divert her. No, she does not want to hear of others' woes; that always makes her more wretched. Her neighbors' poverty is their own fault; why do they not save up against rainy days as she herself does.

What can be done for her? Her case would discourage the saints. And yet she is diseased—with the most intractable of all diseases. She is self-centered. But that does not relieve the doctor from trying to save her. Indeed, in spite of the annoyance she is to him, he pities her. And as visions flit before him of the vast amount of good she might do, of the comfort she might be to her hopeless, exhausted husband, to her poorer relatives, to the sick and suffering in her own immediate neighborhood, if only she could be persuaded to look outwards and upwards, he braces himself to one more supreme effort. He tells her squarely that her woes are all imaginary. Her anger encourages him. He takes up the long list of symptoms she has related and shows her how they contradict each other. His attention to her dismal story gives him the upper hand, for his memory of what she said is better

than hers. Then he softens. Imaginary woes are always worse than real woes, he tells her. And when solid bottom has been reached, in answer to her appeal for help he tells her how to get up and out of herself. He does not confuse her with his own long vista of the road she must travel, of the high ladder she must climb, but he gives plain directions for the first steps. He purposely proposes what she especially dislikes. He insists that she shall call on the Italian family whose cabin she has hated to see built in the edge of the woods she blames her husband for not having pre-empted. He does not tell her of the lame girl there who he hopes will remind her of the little daughter she never mentions. Reiterating his explicit directions, he follows her out to her carriage, partly out of politeness, partly for his own relief to see her go. Well has he earned his fee, the first one that will be charged on his books for this day.

The last to come in is the saddest case of all. At first brazenly lying, she soon surrenders under his merciless plain questioning. Yes, he is right. He has uncovered her secret woe. She still tries to evade all blame. Again and again she protests that it was only just once she fell, and that was when no help was near. But he has been waiting for just this chance. When her father appealed to him to talk to her, "to scare her within an inch of her life," he knew too much to join in the useless coercion. But now when she is crying so bitterly, he can do something. Nor in his heart or from his lips is there one word of condemnation for the erring child. His

very silence comforts her. In pouring out her confession she finds peace, not because of any priestly absolution he can give, but because of her human nature and his. For the time being he is her father, she is his daughter. In answer to her piteous pleading to be relieved of the burden she carries, and of the inevitable shame, he tells her of the great dangers and of the serious criminality involved. He tells her that it is not only his own unwillingness to go to state's prison, but his unwillingness to murder the defenseless, that compels his refusal. And then he gives her the chance to go into retirement, he promises to stand by her and her child so long as they all shall live. Lovingly he pleads with her. Yes, he will be the one to break the awful news to her parents, and he will plead with them that she shall not be cast out into utter darkness.

After such a day the old doctor surely deserves to have rest. You who are only following him may well be weary. But no, Mrs. Jones's labor has begun. He too well remembers what hard labors she always has. It will be a long night's job for him. Of what use is it to go out there now! Nevertheless, he goes. She will have more courage if she knows he is near at hand. And, besides, there is the old paralyzed farmer hard by who has lately been sinking peacefully away. True, he is absolutely unconscious, and his devoted daughter knows his release is near. But then she has never seen a body die, and, though long expected, the end will be a great shock to her. Moreover, is it not his business

to help at the going out as it is at the coming in? He remembers his old preceptor's teaching; and never if he can help it will he miss standing by his dying patients. Too many times he has been repaid by the last handclasp, and by the last look of unspeakable gratitude, to doubt such opportunities for fellow-service. And besides, he knows how those just bereft need, as at no other times in their lives, a strong friend to lean upon. He remembers how tottering he himself was when his own dear ones left him.

We need not follow him further, either in his loving welcome of the newborn child or in his steadying influence at the deathbed. Nor need we watch him as he returns, completely tired out, thankful that the world is asleep and that he at last is alone with the stars which from his childhood up have calmed him.

So much for the passing type of medical practitioner, the old family doctor, the beloved physician. Who is taking his place? How are the medical students of to-day being taught the art of medical practice? Was there nothing lost when in the evolution of medical schools the old apprentice system was given up?

In the old days a young man who wanted to be a physician entered into the service of the most successful practitioner within reach. He studied anatomy and recited his daily lessons. Occasionally he had furtive opportunity for dissecting. He did the chores. He rode and he lived with his preceptor, who handed down to him the lessons he himself had

learned from great physicians gone before. Of course only the common, every-day ailments were thus studied. There was little learned about the nature of diseases, but there was a lot thus learned about human helplessness. Afterwards, in similar emergencies, the man so trained would instinctively imitate his teacher's methods. And in this way was handed on from one generation to another the art of curing or of caring for the helpless. We need not give more than passing notice to the usefulness of the courses of lectures and surgical operations that the young medical student had to attend in order to get his diploma. But it is not out of place to insist that, however valueless in comparison with laboratory research didactic lectures are, nevertheless there is positive value to the medical students in the opportunity to hear and see great physicians and surgeons giving forth their best.

The modern medical school offers most admirable opportunity for the study of disease. In the laboratories, and in the hospital wards and morgues, diseases can be studied in culture tubes, in human patients and in guinea pigs. But what opportunity amid such research is there for the study of human nature? Ability to diagnosticate disease is all very well. It is one of the necessary foundations for medical practice, but it is not the only foundation. A knowledge of materia medica is also a necessary foundation, but of what use is it to a man ignorant of therapeutics. And how can therapeutics be properly taught by a man who has never practiced medicine, as was attempted only

lately in one of our prominent medical schools. In the hospitals and dispensary classes it is true that modern medical students can see all manner of diseases. They can see what treatment is ordered. They may see the same patients a second or even a third time. But what can they there learn of the healing art? What inkling can there be taught them of the truly serviceable relationship between physician and patient?

It is generally believed that physicians nowadays rush into specialist practice because of their desire to excel in some one direction. Such may be the reason with some, but with many the compelling reason is their failure to get into general practice. In the specialties it is not necessary to know one's patient, it is enough to know his disease; whereas in general practice poor diagnosticians are often very successful, because of their knowledge of human nature and of the art of caring for human helplessness.

There is, in short, a radical difference between the science of medicine and the art of medical practice. In the former education of physicians little attention was paid to the science of medicine, and, indeed, there was then not much medical science; but the art of medical practice was taught. In the modern medical schools science is enthroned. Carried away by the brilliance of etiological discoveries, the whole strength of the schools is devoted to the study of diseases. The art of medical practice is not taught; even its existence is hardly recognized. And in consequence the graduates of

the medical schools of to-day are not properly fitted for the practice of their profession.

This is a sweeping charge. Let us see if it can be substantiated by a study of the new kind of doctor. To make the contrast as plain as possible, let us see how he would meet the problems that we have just seen confront the old physician. We must of course make allowance for the difference in age and experience, but some of the new kind of doctors are by no means young, and not all of the old-fashioned doctors are even yet so very old.

Moreover, they both continue to practice in the ways they were taught. One was taught to think first of the patient, to get into direct close relationship with him, to feel his pain and misery, and to strive in every way to relieve him. As a means to this end some thought was of course to be given to the disease. The new kind of physician, on the other hand, has been taught to give his entire attention to the disease, and even the idiosyncrasies of patients are noteworthy to him only in so far as they serve to modify their diseases.

So when we go with the younger doctor into the consumptive's cottage, it will be on his weekly instead of his daily visit. What if the girl is dying, is it not of that most uninteresting (because so common) disease? Moreover, are they not poor, and so is it not better to avoid a large account against them? But never mind his reasoning; come in with him. Brusque and hearty, he wastes no time. See him uncover the poor girl's chest to percuss it, and to listen through his stethoscope to the choking

respiration and to the fluttering heart beats. Oh no, he never omits that process. Not that he supposes it will do any good; he does it simply because he does not know what else to do. It is the way he was taught to treat consumptives. His answer to her complaints is another prescription, or another kind of tablets. To the anxious mother he is honest. He tells her, what she very well knows, that her daughter is failing rapidly. He tells her of the additional infection, and that no one can do anything for the poor girl. He faithfully warns her of the danger to herself from the disease; and, utterly oblivious of the preciousness to the mother of every day and hour of her child's life, he almost voices his own wish that the end shall come soon. Little wonder is it that families so treated turn in their desperation to the Christian Scientists and to the charlatans who, either in their absurd denial of the existence of disease or for mercenary reasons, at least leave some hope in the sick room.

The small boy who fell from the cherry-tree will fare better than the consumptive has fared at the scientific doctor's hands, for although he will yell while being examined, he will nevertheless be told that no bones are broken. And his mother will have some comfort in hearing that, unless some internal damage has been done, the boy will be all right again.

How will the sick baby's mother fare? As far as frightening her, he can do that well enough. And he can scold her for not following his directions. Instead of the broth advised by the old doctor,

orders will be left for some complicated milk modification, far beyond the mother's ability to prepare. Very likely the baby will be studied more carefully; its dejections at any rate will be. And if only his orders are carried out, the baby will have better chances of living. For it will hardly feel, and at any rate will not remember, the doctor's lack of sympathy; and the mother deserved her scolding. Will he go there again? Possibly, but not unless sent for, and it is not at all unlikely the summons will be for another physician.

The contrast between the old and the new methods of medical practice is most glaring in the department of midwifery. It used to be recognized that childbearing after all is something of a natural process, and that most women if let alone get on very well with having their babies. Indeed, it is not so very long since doctors were first allowed to be present on such occasions. It is of course quite true that obstetric science has saved the lives of many mothers and babies who otherwise would have been lost. And it is also true that many mothers and babies have been sacrified by meddlesome midwifery and by infections carried into the lying-in chamber by physicians. Just at the time when this fact dawned upon the medical profession, and when it would have been very becoming of doctors to hide their heads in shame for their past blunders, the new school of obstetricians, instead of returning to a more proper trust in nature, began to treat this most natural process of childbearing as if it were an unnatural surgical operation.

It was necessary only that the doctors should disinfect themselves. But, lo and behold, they insisted upon such elaborate disinfection of the poor mothers, and upon such expensive provision for the expected event, that no wonder the problem of race suicide has engaged Presidential attention. No prudent family could afford to be caught twice. The outrageously unnecessary expense is, however, a small part of the damage. The chief harm of modern obstetric practice has come from requiring such abnormal preparations, and such needless subsequent invalidism, that common folks have come to consider childbearing as a burden to be avoided at all costs.

We need not try with the scientific doctor to follow the old physician's practice too closely. Some of the latter's patients would never come to him, or stay with him long. The widow with the stricture would have been operated on long before. Perhaps she would have been made well; and perhaps she would have been otherwise relieved of her burdens.

Neither the drunkard nor the wayward girl would be so likely to appeal to the modern doctor. And if they did, they would not detain him long.

The self-centered lady would be given a name for at least some of her imaginary diseases. For a time she would be highly gratified by his attention to her symptoms, by his minute examination of her body and of all its excretions. And he will surely find some organ out of order. It is his business to do so. He does not yet know that persistent search for the abnormal in human bodies will reveal some

trifling trouble nine times out of ten. Nor does he yet know enough to keep to himself such discoveries, at least until he has carefully estimated their insignificance. He has yet to learn how rapidly physical defects become worse under the concentrated attention of the patient's family and friends. His ignorance of human nature allows him, and his scientific prowess inclines him, always to reveal the defects and infirmities that nature herself is so kindly concealing. His devotion to what he conceives to be the truth is admirable. On the other hand, his implicit trust in his own observations and in his own opinions is appalling. While concerned with examinations of the excretions, or of the dead body, his methods are unimpeachable, and his conclusions are scientifically sound; or, more strictly speaking, are in accordance with present scientific theories and hypotheses. It is when dealing with the mysteries of life that his science fails him. He has not been taught the therapeutic value of sympathy and of encouragement. In his search for diseases and for their causes he is far ahead of the old-fashioned physician. In the prevention of diseases he can be of immense use to the community. That is his real calling. That is what he has been trained for. In short, wherever knowledge of diseases is needed, there the modern doctor excels. But his training has not fitted him to be a physician.

Much of human helplessness is not due to disease. There is first the helplessness of infancy, and then the helplessness of old age. And between these two extremes there are many helplessnesses of body

and of mind which cannot be classified as diseases. There is, for instance, the helplessness caused by imaginary disease. Scientific hypnotism, it is true, may succeed well with that, but often not so well as the common-sense treatment of old-fashioned physicians. And then there is that most common kind of helplessness depending upon inadaption to environment. The relief of such helplessness can be effected either by change of surrounding influences or by a change of the patient's very self. But how can inadaptability be changed into adaptability, or how can the patient's environment be changed by one who studies only the supposed disease and knows nothing of the patient himself or of his family and material surroundings?

While many of the old-fashioned physician's patients will not be found in the modern doctor's card case catalogue, some clinical histories can be found there which illustrate the advance that has been made in medical science. And not a few of these histories, it must be admitted, begin with a record of mistakes in diagnosis and in treatment which old-fashioned physicians have made in these cases.

In some few instances the cure has been obtained by the use of modern medicines; but in most instances, where, after failure of old-time methods, modern science has succeeded, credit will belong to the surgeon rather than to the physician. Such successes are startling, and no one would attempt to belittle the fame of the modern surgeon. But in this study of old and new methods of practicing the

healing art one may at least inquire about the unsuccessful and perhaps unnecessary operations. Perfect hospital asepsis affords wonderful operative immunity. Anæsthesia allows surgical liberty if not license. And in consequence of these two great advances in medical science the character of surgeons has changed. In former years only unavoidable surgical operations were performed. The greater danger to life and the awful sufferings of the patient deterred even the boldest surgeon from unnecessary mutilations. Now when there are no such deterrents, when only unconscious patients lie on the operating table, and when the danger of wound infection has been eliminated, the surgeon's *cacoethes operandi* is unrestrained. We will not speak of the grievous wrong of unnecessary mutilations, nor of the financial allurements in modern surgery, but we must speak of the surgical patients' sufferings during convalescence. These sufferings, although of shorter duration, are no less severe than they always have been. And if the modern surgeon had to spend the following night with his patients, he then might realize what it is to emerge from anæsthesia into a perfect hell of pain and misery. But this is not the modern surgeon's way of doing business. He must have rest and recreation in order to keep his nerves steady for the morrow's cutting. His patients' sufferings might disconcert him. So, in response to their begging for his attendance, he telephones his directions to his assistants and nurses. He may even forget to inquire if his patient has survived the operation.

For the highest surgical success it very likely is necessary that surgeons should be thus relieved of personal relationship with their patients, and of all acquaintance with their sufferings. But, even admitting the rightful existence of some few such specialists, is it a matter of no concern that the medical students of to-day are being educated to such inhumanity? While being taught modern surgery, should they not also be taught the art of relieving, of soothing and comforting those who suffer, and of steadying and supporting those who walk in the valley of the shadow?

WHAT MIGHT BE DONE BY THE OBSTETRICAL SOCIETY TO ADVANCE THE TRAINING OF NURSES

1894

"The physician is not blameless if his patient suffers from faulty nursing."

WHAT MIGHT BE DONE BY THE OBSTETRICAL SOCIETY TO ADVANCE THE TRAINING OF NURSES

In the successful management of obstetric cases much depends upon the nursing service. Indeed, in normal cases, more depends upon the nurse than upon the physician. And in abnormal cases, especially where surgical interference is exercised, after the operation or the delivery is over, then even more responsibility falls upon the nurse for the happy uninterrupted recovery of the patient. If to this is added the responsibility of starting a baby on a prosperous career of health and happiness, it would seem as if the monthly nurse always ought to be at least an angel. Sometimes she is one: sometimes she — isn't.

If obstetricians have poor or only tolerable nurses, it is their own fault: if they submit their patients to positively bad nursing service, then their fault is inexcusable. In other words, the physician is not blameless if his patient suffers from faulty nursing.

This particular responsibility of the doctor is of comparatively recent origin, and is due to the fact that within the last few years the profession of nursing has been revolutionized.

Monthly nurses used to be expected to know everything about mothers and babies. They did just as they pleased. They followed the suggestions of the physicians, if they saw fit to do so. Among these old-time nurses were many whose long experience, whose sterling common-sense and unfailing devo-

tion entitled them to far greater rewards than they ever received. Some few of these old nurses or of their legitimate descendants may still be found in the old-fashioned households. But their type is fast passing from the stage.

In their place have come young women who have *studied* nursing. How contemptuously would the real old-timer have spoken of a *student* nurse! And how densely ignorant she would have seemed to the modern training-school graduate! Neither could understand the other. The revolution in nursing is complete.

With the old nurse the doctor's responsibility for the nursing service was very faint. She would brook but little criticism. Her unfailing defence lay in her silence. She would report only what she chose to report, and whatever happened she would never acknowledge her ignorance. Indeed, had she done so, her usefulness would have been abridged, for her families took comfort in her supposed infallibility. And much of the uncouth traditionary household physiology and pathology of to-day has its origin in the speculations of the old monthly nurse.

With the modern nurse, on the other hand, the doctor's responsibility as to the nursing service is like that of the captain for the safety of his ship. Both are alike responsible for the execution of their orders. The modern nurse recognizes her position to be that of an executive officer: and when she is working under a physician who so recognizes her position, then all goes well. Where the modern nurse fails to give satisfactory service, the failure is

generally due either to her improper training or to the inexact and unintelligible orders under which she was working. In either case the failure is primarily the physician's. For it is his business to train his nurses, or at least to secure trained nurses for his patients, as it is also his business to give his directions in such exact intelligible fashion as will effectually prevent any misunderstanding.

Of course, it is possible that the failure of satisfactory service is due to the nurse's personal unfitness for her work; but, even so the physician is not free from accountability, for he ought to know the characteristics of his nurses and their fitness or unfitness for his different families and patients. The physician must apportion their service, just as a general must, by taking into account his subordinates' special fitness for various positions of responsibility. The personal equation nowadays is of constantly increasing importance. This is the age of specialists, and nurses equally good in all kinds of work and under all sorts of conditions are not to be found seeking employment.

If I am right in thus stating the responsibility now resting upon the medical profession as regards the nursing of their patients, it must be admitted that this responsibility is not generally acknowledged. Many physicians still scold about their nurses. Few take any pains to improve them, or take any interest in the methods of training. In short, the revolution in nursing has not yet penetrated the apprehension of such physicians.

My object in asking the attention of this Society

to this subject is to enlist the coöperation of all who are interested in advancing the new movement. It is high time that concerted efforts should be made to secure, first, more trained nurses; second, better trained nurses; and, third, a more serviceable working relationship between doctors and nurses.

In this paper I purpose to consider especially the subject of obstetric nursing. Let us then, first, inquire how the supply of monthly nurses may be increased.

It is, of course, plain that the training schools of the lying-in hospitals cannot more than begin to supply the demand even of their immediate vicinity. When the birth-rate of the community is considered in comparison with the possible number of such graduates, it is only too apparent that not one out of every ten confinement cases can be so cared for.

Where the supply is so limited high wages rule, and only the rich can afford to employ trained nurses; accordingly physicians whose practice is mainly among the wealthy do not appreciate the scarcity. But women of moderate means, and of no means, need trained nurses just as much, if not more, than do their wealthy neighbors. Moreover, the physicians who attend such women in their confinements need the assistance of trained nurses.

The problem thus becomes one of economics at the very start. Its solution is not impossible. For just as is the case with physicians, so it should be with nurses: the poor now receive their medical attention at the hands of beginners or as a direct charity, and so they must receive their needed

nursing service. Families of moderate means employ medical attendants who are willing to work for moderate fees. As these physicians and surgeons acquire greater reputation they take new patients only for increased fees, and so it goes on until only the very rich or those suffering from some pathological rarity can enjoy the privileged service of the very distinguished practitioners. So it must be with nurses. In a properly adjusted system of training, student nurses would practise, under the direction of their teachers, among the poor and those of moderate means. Immediately after graduation, instead of demanding at once the highest wages, they should expect to work for moderate pay among those who cannot afford more; and only after several years of increasing experience should trained nurses expect the highest wages.

At present the nursing profession in matters of compensation is too much like the clerical, where experience and proved usefulness count for little against youth and "brilliant promise."

It is, therefore, in this solution of the economic problem that we may discover how to increase the number of trained nurses. Not by increasing the lying-in hospitals, however desirable otherwise that may be, but by utilizing the opportunities for training that now surround us in the homes of the poor and of those moderately circumstanced. Thus, too, may be secured better nurses, and also that final desideratum—a more serviceable relationship between the two professions.

Until recently it has been held that nurses could be trained only within hospital walls. Whereas the truth is that nurses so trained begin their private practice under great disadvantages when compared with others, whose training has been in part in the private practice of their instructors. And in recognition of this fact, many of the best training schools have already arranged to send out their student nurses to private work for a part of their training.

Meanwhile, the special problem before us is to arrange for the instruction in obstetric nursing of the hundreds of student nurses and training-school graduates in this vicinity who now have no chance to learn the art. For, so long as our large training-schools graduate nurses, whose only instruction in obstetrics has been one or two lectures on the subject, we need not expect any spontaneous improvement. The graduates of these large schools may know how to manage a typhoid-fever patient, but many of them do not know a nipple-shield from a breast-pump; they, of course, do know how to arrange a room, and instruments and dressings, and the patient for an aseptic surgical operation, but they do not know how to prepare for ordinary obstetric cases. And yet, when they seek for private work, they soon find that surgical cases are not so common as confinements. Their general training, of course, helps them greatly in obstetric work if they bravely undertake it, but they have no opportunities hereabouts for instruction in this branch unless they enter the lying in hospital courses, which

at most could not accommodate one-tenth of those who should receive instruction before receiving their diplomas.

Physicians have to study surgery and obstetrics, even if they from the first intend to practise only as specialists in other branches. And it is accepted as axiomatic that some preliminary general practice is necessary to highest development in any specialty. Even more truly is this the case in the profession of nursing. No training should be considered complete that does not include obstetrics: nor should any obstetric nurse be considered as well trained who has not also been trained in the nursing of surgical and medical cases.

And yet the custom still prevails in Boston of training nurses only in specialties. Obstetric nurses, and nurses for infants, for lunatics, for neurasthenics, are graduated annually from various institutions; but very few nurses can be found who have received all of the different diplomas, and this in spite of the possibilities that neurasthenic women may have to be delivered and may become insane. Consulting specialists may so supplant the general practitioner that his type shall become extinct; but in the profession of nursing the good, all-round nurse is what is wanted now, and will be forever.

As a remedy for the present confusion, it might be thought possible to secure some coöperation among the different training-schools, such as has been secured in other cities; but that hope need not be entertained for Boston, for so jealously guarded

are their doors, that not even the graduates and superintendents of other schools are allowed opportunity to study each other's methods of training. In other cities, both in this country and abroad, such opportunities are most hospitably afforded. In Boston, it would be considered most impudent even to suggest to any one training-school the possibility of its being improved by association with any others, and any appeal for a more general distribution of its peculiar advantages is met by the courteous announcement of its weekly lectures and monthly conferences, which by the liberality of the trustees are open to outsiders.

The means of improvement must, therefore, be sought independently of present organizations. It would be easy, for instance, for the Obstetrical Society to inaugurate, or at least to matronize, a course of post-graduate instruction in obstetric nursing which should include a stiff course of lectures, recitations and examinations, with practice under approved instructors in the dispensary districts and in the homes where only very moderate wages could be afforded. The diploma granted to those who earned it would give a rating like that of the London Obstetrical Society. Were such a course of instruction offered, hundreds would apply. There would be an immediate supply of nurses for the poor, and for those who can pay at most only a few dollars for their care during confinement. The instructors in this post-graduate school, in return for their teaching, would have an abundance of

assistance, and would be saved many hours of weary service which they now endure.

In the same way, other societes might inaugurate special post-graduate courses of instruction in other departments of nursing. Thus nurses might be taught how to take care of infants, a department now most sadly neglected.

But better far than separate and independent post-graduate courses would be a central post-graduate school which would have general management. Such a school could do more for the advancement of the nursing profession, and consequently, for the advancement of the practice of medicine, than any agency within the realm of things possible and practicable.

Such a school would need no endowment. From its inception it would be more than self-suporting. Out of it would grow perfect systems for the registration and the distribution of nurses. In place of feeble guilds and graduate clubs would grow a large, strong association of all the members of the nursing profession. And finally, Boston might so regain her old-time preëminence as an educational centre for nurses.

One of the many advantages that would result from such a central post-graduate school would be that of uniformity in the matter of giving diplomas to nurses. The course of instruction would have to be lengthened, which by no means should be considered a disadvantage. Graduates of the present schools might then seek work as they do now, or they might take the different courses and examina-

tions of the post-graduate school in the surety that, having obtained the advanced diploma, their services would be in greater demand.

This in time would naturally lessen the apparent value of the diploma now given by the different schools; but if it led, as well it might lead, to a uniform examination by the central licensing board, the greatest benefit would result.

Thus, in the special department of instruction under our present consideration, there is now no uniformity in the different diploma-giving schools, and we have no means of ascertaining what instruction has been given to the nurses who are engaged for our obstetric cases. For this we have only ourselves to blame, for if we instituted even examinations for nurses in this department, the different schools would at once try to conform their instruction in this branch in order that their graduates might with least difficulty obtain the advanced diploma.

As is true in every professional school where the diploma carries with it any certificate of fitness to practise, the diploma is open to suspicion if it be granted solely by the instructors of that particular school. Thus, for instance, the possessor of such a diploma may be better versed in the different instructor's whims than in real knowledge.

If, then, we cannot at once arrange for post-graduate instruction for nurses, let us at least arrange for the examination of nurses, and so secure some sort of uniformity in their training.

AN ADDRESS RELATIVE TO THE WALTHAM TRAINING SCHOOL FOR NURSES

1899

"And undoubtedly there is a larger supply of latent willingness to help the helpless than has yet been brought into action."

AN ADDRESS RELATIVE TO THE WALTHAM TRAINING SCHOOL FOR NURSES

I must take a word to thank our hostess for this meeting today and you, ladies and gentlemen, for your willingness to listen to the story I have to tell about a training school, not in your own immediate neighborhood, but still within easy visiting distance, as I hope you all will prove. But before I take up particularly the story of the school itself, I want to sketch the history of trained nursing so that you will see Waltham's part in the general movement—a movement which we all feel to be one of the distinctively splendid achievements of the century.

It was only as far back as 1833 that trained nursing had its re-birth in Kaiserswerth on the Rhine. There had been nursing ever since the time of the Christian era, for when men first started out preaching in the name of Christ, women seem to have started out practising what the apostles preached. The mosque of Saint Sophia in Constantinople which has stood for fifteen centuries was built not as a Mohammedan mosque but as a training school for nurses, and although the crescent has long replaced the cross there and the purpose of the building long since been lost, still those who were taught in the early Christian centuries the art of nursing and were devoted to it left a heritage that has been handed down through successive generations and indeed has not yet entirely passed away. At the time of the Reformation, Martin Luther himself gave a good deal of time to the development

of the art of nursing, making it a prominent part of his church work. Of course we know that our Roman Catholic friends have made the art of nursing a part of the profession of women who are devoted primarily to religious living. But trained nursing as we know it today is very different from the nursing done by the early Christian women and quite different from that heretofore done by the Roman Catholic sisterhood, for they made the practice of religion of first importance and the profession of nursing an incidental, or at least a secondary matter, whereas the trained nurse today, perhaps not less religious, makes the practice of her art her first duty, putting into that whatever inspiration she may gain from her religious life, and so carrying her religion into active practice.

When Fliedner in Kaiserswerth began this new departure, he was wise enough to see that nursing required the whole of a woman's time if she would undertake the profession, and that it must be her single aim. Fliedner himself, a poor German pastor who had lost his church by the bankruptcy of one of his parishioners, travelled through Holland and Belgium and the Rhenish provinces to get money to redeem it. He raised the necessary money and he also brought back a larger knowledge of what was being done in the world to relieve human suffering than any other man on earth at that time possessed, for on his journey he visited every eleemosynary institution, and visited and talked with all known to be interested in the arts of relieving suffering humanity. He brought this knowledge back with

him to his little village, and there he established his system of training nurses. It was not until some years after his return, but in 1833 he persuaded two women to begin this work. When Fliedner died in 1864 there were many thousand of his nurses who had been trained either in Kaiserswerth or in daughter institutions, who looked to him as the founder of their profession.

On a journey down the Rhine a young English woman once stopped at Kaiserswerth out of mere curiosity, and there became so impressed with what Fliedner's nurses were doing—they had been working only thirteen years—and with the sight of how completely they were relieving the various sufferings to which all humanity is exposed, that her heart and soul were afterwards uneasy in her comfortable English home. After a few years she went to Fliedner, in spite of the protests of her friends, and asked him to train her. He said she was too delicate a woman to undertake the work. "You are not the kind of a woman to do it," he said. When she persisted in her appeal, he said, "Then scrub that corridor floor." I have heard her say herself that it was a very dirty floor, but she scrubbed it. And it is lucky for the world that she did so, and that she stayed there until Fliedner was satisfied with her training. She for many long years was the only English speaking nurse. When she went back to England, it was not to do actual nursing. Her idea was to care for the aged. That was one part of Fliedner's work in Kaiserswerth, and it was to that she devoted herself for several

years in England—to making a model home where the aged could have everything done for them that it is possible to do. It was at that service she was working when, in the Crimean war, it was found more were dying in the hospitals from pestilence than from wounds received on the battle field. When the cries of those sufferers reached the English heart, she was asked to go, and the government letter asking her to go crossed her letter volunteering to relieve the pest hole. For the first twenty-four hours after her arrival she only succeeded in getting the corpses out of the hospital, so many had been left in or underneath the beds they had died in. A general in the English army once told me he was in bed when she came there, and the next day he saw a pile of legs and arms, which had been amputated and thrown out of the window and piled in a corner, being carted off, and then he knew the English woman had reached that hospital. Ten thousand she found there to take care of, yet her only training had been in the little hospital of scarcely a dozen beds, in a little town with scarcely a thousand people in it. And yet in America nurses are often ranked according to the size of the hospital where they have worked, on the supposition that a nurse coming from a hospital with a hundred beds must be twice as good as a nurse coming from a hospital with fifty.

We were proud in this country of what Florence Nightingale had done, her name and fame were everywhere known, and yet we went into our civil war without a single trained nurse, and we came

out of it without a single trained nurse; nor was there any attempt to train nurses in this country until Boston began the work thirty years ago. It is to the lamented Dr. Susan Dimmock—whose memory must forever be honored in Boston—that we owe what we have of trained nursing in America. I remember some of the obstacles she surmounted. I remember it well, because a sister of mine wanted to join her proposed class for the study of the art of nursing, and I recall distinctly the opposition which she encountered. It was then a dreadful thing in Boston to think of a woman with any sort of advantages entering such a profession as that. Dr. H. R. Storer a few years earlier had pleaded for it, showing how dreadful the lack of nursing was and how possible it was to supply the need, but nothing was done. It is the New England Hospital for Women and Children that has the glory of the first training school for nurses in this country.

A few years afterwards the Massachusetts General Hospital and the Boston City Hospital training schools were started. In those schools and in other hospital training schools of the same kind there has been more or less intent to carry on the general educational movement. Florence Nightingale had started a splendid school at St. Thomas's. In Germany training schools were multiplying, and why in the world were there none here? Boston seemed to feel the lack and seemed to take upon its shoulders the task of starting training schools with the main purpose of really educating nurses. But such training schools as were then started were

soon so absorbed by the hospitals that the idea prevailed that the schools were primarily for the hospitals. I want to show you today that that is a very incomplete idea, and that such a training school falls very short of its possible mission.

Of course it is a great good to have the finest possible nurses in our hospitals. It is also a great advantage to the hospitals to get their nursing at the cheapest rates, as can be done by paying student nurses, not in money but in education. But hospital nursing is not what is most needed on earth. Not a tenth of those who need nurses ever enter hospitals; not a tenth born in the city are born in a hospital; not a tenth of those who die die in a hospital. No matter how well a nurse may be taught to care for a patient in the hospital, she is not taught there and cannot be taught there to do the thousand little homely services which constitute so much of the art of private nursing.

Fliedner never made hospital nursing unduly important. His hospital was small. True, he taught in it the most perfect nursing under perfect conditions, but the strength of his teaching was directed towards making his nurses able to do their work under any, howsoever straitened, circumstances. In the first place there were the sick in their own humble homes in Kaiserswerth. There were also places there for the babies whose mothers were too poor to take care of them when they were sick; there was an asylum where those who were diseased in mind could be beautifully taken care of; and there was a home for the aged where those

who could no longer take care of themselves could be properly taken care of. In all of these departments his nurses were trained. On one side of the street were those just born into the world, and on the other side of the street were those just going out of the world. Now a general hospital will not admit either of those extremes of human need and will not take in hopeless cases, and yet, a nurse's work in the world it is very easy to see must be most largely occupied with chronic cases and with the reception of life and with doing the last duties toward those going out of this life. We cannot think in any stage of civilization that people have a fair show if they die unattended by all the skill and comfort yet attained by their race, and we ought also to be willing to provide a welcome for all new life coming into the world as skilled and beautiful and loving as it is possible to provide. Is it not very plain that a training school for nurses must teach these services if it has the education of women to meet human needs as its first purpose, and is it not also very plain that such teaching cannot be given in hospital wards?

I have given this sketch of trained nursing in order to show where the Waltham school comes in the general movement. It was the first training school for nurses started in this country with purely educational purpose independent of a hospital's needs or advantages. Indeed for the first year we had no hospital. We needed nurses in our homes and there were some young women who were willing to become nurses, and there were physicians

and kind women who were willing to teach all that they knew of nursing. We did not pretend to be able to teach hospital nursing, but we could teach our student nurses how to do the nursing that country doctors have to do, and very soon we found that they could do far better than their teachers. We had young women there of perhaps exceptional ability who were willing to venture. They were tired of sitting at their benches making watches, their hearts were hungry, their souls athirst. They went to work with vim and they did become nurses. I do not feel proud of the nurses of those early classes in comparison with the great nurses of the world, but I feel proud of their work and of the true professional spirit they have shown in always striving to learn more and more of the art of nursing. They at least knew when they were graduated that they did not know everything. Since that time we have graduated 125 nurses, and many of them I am very proud of, for I think they stand well in the profession, and some of them I believe would rank with any nurses in the world. They have had particular advantages, which I will now try to describe.

Come with me and let me show you what our student nurses are and what they have to do. In the first place, we are very careful to get the best material that is offered, and a great deal is offered, so that we have a chance to make a most careful selection. Twice a year we start with classes of fifteen to twenty girls. For a year we call them probationers. For the first six months in that year we train them to do housekeeping, for we believe that nursing

essentially is housekeeping or home-making for the sick, and we also believe it is impossible for a woman to make a home perfectly fitted for a sick person who is not able to make a perfect home for a well person. So a thorough education in housekeeping is first given them, with that underlying purpose kept in view. They are taught to dust and sweep and boil potatoes and roast meat, not only because the student nurses themselves must have something to eat, and a clean home to live in, but that they each in turn shall know how to make homes out of houses and appetizing food out of raw material. And they are drilled in this service until it can be done without conscious effort. Unless a woman can cook well and do something entirely different with her mind at the same time, she is not a trained nurse; if she has to be thinking how the gruel is to be made, it is sure to be spoiled. While being thus drilled in every branch of housekeeping the probationers are being taught in lectures and in laboratory work the elements of the sciences underlying the profession of nursing.

We have found it a better time to teach the elementary anatomy and physiology that intelligent nurses must know, in this probation period before they begin actual nursing. And while actually cooking the food for the household they are also being taught the chemistry of cooking. In this combination of theory and practice they learn to delight in service that would otherwise be considered drudgery.

The art of cooking, for instance, is taught by Miss

Boland not by giving them receipts to remember but by showing them what tid-bits can be cheaply bought in the market, and how at smallest cost a delicate and appetizing lunch can be provided and served. While the meat is roasting she is explaining the process. Their intelligence is appealed to and their interest aroused. They are eager for opportunity to put their knowledge into practice.

Let me tell you a story in proof of this. A woman died a little while ago, leaving a helpless baby just born and four or five children, the eldest of whom was perhaps eleven years of age. The father was earning his dollar and a half a day. His distress was great. I will not dwell upon what the nurses did for that little baby, taking it around to one mother after another to get breast milk for it; but I want now to tell how the nurses of their own accord would go to teach that little girl how to cook, and how to make the most of the scanty food supply and how to make the home cleaner and brighter.

Only a few doors away on the same street a man lay helpless in the last stages of consumption. His small savings had long before been spent in the vain struggle to escape the merciless foe. His thin pale wife was earning the rent and fuel and scanty food by weaving in the mill. Long before light she did the housework, leaving all possible provision for his needs within his reach. In the short noon hour she bathed and soothed him, but she was going without her own dinner. When the district nurse discovered that, of her own notion she timed her morning visit

to the sick man so that she could cook and leave a dinner ready for the weary weaver.

It is plain that such service as this can be given only by those who both know how and rejoice to do it. Not every probationer can be taught this, but only those who can be are kept in the school. Half of those who come leave during their probation year, some of them because they do not like housekeeping, some of them because they do not like hard work of any kind, some of them because they cannot learn from hearing the lectures. If they pass their examinations well in all departments of home making and if they pass their examinations well in the elementary sciences, then they have a chance to show what nursing instinct they have in them.

We believe there are born nurses, just as we believe there are born surgeons and born generals. That is, people are born with different bents or aptitudes. And although natural abilities without thorough training count for but little in the professions, still it is impossible by any amount of training to make up for the lack of instinctive fitness. But it is not always easy to determine the presence or absence of this essential quality in student nurses. In some the doors of their hearts have been long shut and locked and the keys lost, and yet when the chance for real heart service offers they spring forward far in advance of those who previously seemed more open hearted.

If the Waltham school has any one especially distinctive purpose in effective operation it is this discovering and fostering in the student nurses their

innate nursing powers. When the chance is given them to see if it is in them to become nurses, it is not by giving them some one thing to do for a great many patients in a long ward, but it is given by bringing each girl in contact with some individual need, perhaps in washing a new born child, or perhaps in standing by some old person dying of long and lingering disease, whose family are tired out. The young nurse for her first experience is given that one particular needy body, and is taught by an older nurse everything that can be taught her in the art of ministering to that individual. If she takes to it, if she springs at that opportunity, if there shows in her face a new life, of conscious service, we say, "We may make a nurse of you." When they have done thorough service for one patient, then they are put at doing the same for two. We say, "You go out and make one call today and another tomorrow. Can you not then do all that needs be done there in one-half that time? Instead of two or three hours can you not do that in one hour and go to another person who needs you?" Thus the probationer is led along to see that it is possible to do for the sick and suffering a great deal in a very short time and to feel the delight of acquiring speed and skill in such service.

Then she is given some time in our little hospital of sixty beds, where she has in all about a year of service. She is taught there everything we know about hospital nursing, but while being drilled in hospital methods she is not allowed to forget to treat the patients in the wards as she has been

taught to treat patients in their own homes. In each sufferer she must take the same individual interest and to each she must give full measure of heart service. She is thus saved from mechanical hospitalism.

Throughout her hospital service, just as in her district visiting nursing, the student nurse is changed from one kind of work as soon as she has become proficient in it to some other kind of work in order that she may be constantly growing in usefulness.

After her hospital service she is sent out to private homes to serve at the same case perhaps for several weeks under physicians who are willing to accept her service as a student nurse, recognizing that she expects to be taught. There are many physicians who prefer that kind of nurse to the kind of nurse who thinks she does not require to be told anything. I am sure that the Waltham nurse when she is graduated never feels that way. She feels humble, if nothing else. She has seen the chances of doing heroic work, and she burns for it. I was not surprised, when volunteers were called for to go to the Klondike, that the Waltham nurses offered to go, and I am not surprised to hear of their heroic efforts there. I do not think that anything done in this century in the way of nursing is more noteworthy than the labor of those nurses in trudging over the snow to get there, and then their devotion to the sick and suffering amid such awful surroundings. Those nurses in the Klondike are modern saints. But I do not know any difficult service for which our nurses would not volunteer, for they have the

inspiration of knowing their work is a part of a great whole. The probationers are taught the history of nursing almost before they are taught anything else.

I have already spoken of some of the lovely work these nurses do. There is no child born in Waltham, in no matter how humble or impoverished home, who is not welcomed by a loving nurse trained as well as she can be trained. The nurses delight to go out for such services, and the women know that they can have that service practically for nothing. The cost of having the nurse during the labor of the woman and afterwards, to wash her baby and give her her food and teach the family what to do, costs only a few dollars, and if they are able to pay anything, they pay it most gladly. If unable to pay they have the same service gratuitously. That is a great thing, to make a corner in this world a lovely place to be born in.

There is another thing which is our pride; we make it a good place to die in. A great deal of suffering at the last of life can be obviated by good nursing. There is in Paris a Roman Catholic Sisterhood whose members go when a person is dying and stay until the end, and then stay with the body until it is buried. They delight in that service, and have attained great skill in the art of relieving the dying. Mrs. Dacre-Craven was herself so impressed by what she had seen done by the Soeurs Augustines that she went over and learned from their art, and then she came back and taught the district nurses in London. Afterwards one of them

would not leave work when sick and tired and go out of the city, and when asked the reason said that she wanted a district visiting nurse to be with her when she died. Now in this country few people know how to die, and friends do not know how to let them die in peace. It is an art and an art that can be taught. Grim as the subject may be, it yet presses home to us all, and there is nothing, after teaching the proper reception of life into the world that I take more pleasure in teaching than how to relieve the dying distress of those who are leaving the world. And I think that our nurses, in staying by after the end has come and in properly and reverently caring for the bodies of the dead, make righteous protest against the custom of giving over the bodies of our loved ones to undertakers, who care only for their pay. I can remember as a little boy many a time my mother absent at meal time and then coming back either joyous that a new life had come into the neighborhood, or else saddened in telling us that our little playmate had lost brother or sister, father or mother; and I know that our mother was carrying out what her mother and grandmother had done for their neighbors in times of need. In the humbler conditions of colonial life there were many precious customs which we have lost. No loss is more deplorable than this abandonment of neighborly service. It is not that we are harder-hearted; it is partly that we know such things can be done better by those who are specially devoted thereto, and those who know how well nurses can do by the dying very rightly want them at hand in

their own time of need and also want to provide trained nurses for their neighbors.

Now I feel that the nurse, if she is properly trained, if she is trained as Fliedner's nurses were trained and as we, in imitation, strive to train them in Waltham, I feel that such a nurse has a wonderful chance of carrying out the good and kind neighborly intentions of the community. We all yearn to do these things for others in time of their sickness and trouble. These nurses carry this yearning into practical execution, and in carrying it into practical execution a light shines forth in their faces. We who work with them cannot help feeling ennobled by their influence, for we catch from them something of their inspiration.

THE WALTHAM TRAINING SCHOOL FOR NURSES

THE ADVANTAGES OF SEPARATE ORGANIZATIONS FOR TRAINING SCHOOLS AND HOSPITALS

1906

"But the tide is turning, and there are many signs that the emancipation of nursing schools is at hand."

THE ADVANTAGES OF SEPARATE ORGANIZATIONS FOR TRAINING SCHOOLS AND HOSPITALS

In Fliedner's school on the Rhine, where seventy years ago modern nursing is generally considered to have begun, the hospital is only one of several departments of the mother institution. This, essentially, is the status of all hospitals and training schools belonging to religious orders, both Protestant and Catholic. There are many advantages as well as disadvantages in such a relationship. But before particularly considering the advantages and disadvantages of any of the different arrangements now existing, we should first give at least a hasty glance over the whole field.

The greatest advance in the evolution of the new profession of nursing was the establishment, in 1860, of the Nightingale Training School for Nurses in connection with St. Thomas's Hospital. Although both this school and hospital have been from the first more or less identified with the established church, as indeed is the case with most of the English schools and hospitals, still in the main the school is non-sectarian and at any rate it was the first to emphasize the separation of the nurse's profession from the religious orders. Among English speaking people the Nightingale Training School for Nurses may, therefore, rightly be said to have inaugurated a new profession. In all its details the school was planned by the foremost nurse who has ever lived. It was and it is distinctly an educa-

tional institution, in affiliation with the hospital, but under the management of a separate board and supported by separate endowment. The superintendent of the school holds double office, for she is also the matron of the hospital.

In the establishment of training schools on this side of the ocean Miss Nightingale's advice was besought and at first was faithfully followed. The first training schools were thus organized separately from the hospitals but in affiliation with them. Had these schools been as properly endowed as was the Nightingale School, it is not unlikely that this relationship would have continued.

The wonderful increase in the number of training schools during the last quarter century has been primarily due not to a widespread educational movement for the benefit of young women, in order to fit them in the best possible manner for the subsequent practice of nursing, but rather to the recognition on the part of hospitals that student nurse service is better and cheaper than any other nursing service available. Owing largely to this economical discovery the number of hospitals in the country has increased tenfold within the past twenty years, and nearly every one of them now owns a training school. Hospital nursing meanwhile has been revolutionized. Too much cannot be said in praise of its present efficiency.

In Great Britain there has been the same departure from Florence Nightingale's ideals. But in Germany, with very few exceptions, the public hospitals still prefer to depend for their nursing

service upon independently organized training schools.

There are thus three principal kinds of relationship between training schools and hospitals to consider. First, where the educational institution owns and manages the hospital; second, where the hospital owns and manages the school; and, third, where the two institutions are under separate management but more or less closely affiliated.

(1) To the first class, as we have already seen, belong the hospitals and schools of the Protestant deaconesses and the Roman Catholic sisterhoods. Some of them are very old and famous. But in this scientific age it is generally believed that such connection between the hospital and church has been outgrown. No doubt the Deaconesses and Sisters have been slow in adopting scientific methods; nor have they fully grasped the fact of the separation that has come about between the nurse's vocation and the outward practice of religion. But many of these institutions are now rapidly improving their training schools and also making them non-sectarian. They have a tremendous economical advantage over other hospitals. And it is not at all unlikely that we shall yet see a great revival of the church hospital and training school, as we have lately seen in this country a great development of church day schools.

(2) In America the hospital ownership of its training school is nearly universal. Although many of the hindrances to nursing advance are due to this subservience of the educational to the eleemo-

synary institution, nevertheless, so firmly is this custom entrenched that even those who recognize its great disadvantages still accept the arrangement as inevitable. But the tide is turning, and there are many signs that the emancipation of nursing schools is at hand.

It is surely well for those who are interested in the education of nurses to look squarely at all the obstacles thereto. We can then plan to surmount them. Almost all of our hospitals are governed by trustees, who are elected or appointed solely for the efficient and economical management of the hospitals. The nurse's training schools belonging to these hospitals are merely side shows. Whatever interest in them the hospital trustees may have is due only to their anxiety for most efficient and economical nursing service. The resident physician or medical superintendent of the hospital is merely the salaried agent of the trustees. It is his first business to suit them. And the matron of the hospital and superintendent of the training school is merely one of his assistants.

Of course, as we all know, some hospital trustees and some hospital superintendents are also interested in the higher education of their nurses beyond the hospital's immediate advantage, but in such men this is a secondary and not a primary interest. In point of fact it is seldom even that much; for there are very few hospital trustees in this country who make the management of their hospitals a matter of first interest. What, then, can be expected of them in advancing the profession of

nursing! It would be just as sensible to expect hospitals to manage medical schools to the advantage of the profession of medicine as it is to expect any advantage to the nursing profession from the hospital's ownership and management of the training school. The hospital depends upon practically gratuitous nursing and medical service from students of nursing and of medicine who are glad of the opportunity for practice that such service affords. If it be said that the medical students who serve as internes must have had previous education in the medical schools, it can be as truly observed that student nurses ought also to have preliminary and preparatory education before being given practice in the wards. And why, it may well be asked, should it be expected that young women must learn their anatomy and physiology, for instance, while hard at work, when their brothers in the medical school are allowed all of their time for these studies? The unfairness of this discrimination against the nursing profession is not lessened by the fact that a shorter course of preparatory education is needed for the student nurse before she begins the actual practice of nursing than is needed by the medical student before he is given practice even in outpatient assistantships.

All medical schools offer opportunities for this preparatory education. Why do not all training schools do likewise? There is but one answer. The hospitals which own the training schools think they cannot afford the expense of preparatory courses. And yet many of these same hospitals pay to their

student nurses in small monthly stipends as much as proper preparatory courses would cost.

The cause of this and also of other glaring anomalies in the present régime is easily found in examining its development. Before their training schools were started the hospitals depended for their nursing service upon hired servants often of the lowest class. When these toughened women were displaced by student nurses the same wages were paid and too many other of the same conditions remained in force. It is very true that many of these hardships have been ameliorated; but the fact remains that hospital student nurses do not yet have anything like a fair chance for acquiring such an education and training as will best fit them for future usefulness.

The defenders and advocates of the present system of hospital owned training schools maintain that the only education needed by nurses can be acquired in the actual nursing of a great many cases. We need not stop to discuss this proposition, further than to point out the fact that only a certain amount of nursing service can be given by any one nurse and therefore it matters not by how many hundred or thousand other cases she is meanwhile surrounded. For even if it be admitted that a nurse's proper education is provided for in the opportunity to see and to nurse a great number of patients, it surely cannot be gainsaid that the variety of cases thus available is, at least, of equal importance.

In a great general hospital there is, it is true, a large variety of cases. The medical internes have

the chance of seeing many rare diseases and very many cases of the common diseases. To a less extent, the student nurses also have this advantage. But inasmuch as hospitals admit only certain forms of human helplessness it necessarily follows that the hospitals afford their nurses correspondingly restricted opportunities for their education. Thus, in one hospital there are no contagious cases, in another no obstetrical cases, and so on. Worse than this, the special hospitals that receive only women patients, or children, or only mental or nervous cases, all have their training schools.

Some few hospitals have lately tried to arrange for their student nurses exchanges of service, but this movement, which is of great educational promise, is beset with difficulties. The interests of the different hospitals clash, and even where they are virtually under the same management, this exchange of service, after having been proved most desirable from the educational point of view, has been discontinued. Such arrangements for the broader education of nurses, however, can very easily and naturally be made by the independent schools.

But, even with all the possible advantages of service in several different hospitals, there is still lacking in hospital training schools the opportunity of learning how to care for the common everyday ailments and invalidisms and helplessnesses, which are never admitted or, if by accident admitted, are never allowed to remain in hospitals. And yet in the

actual practice of both physicians and nurses by far the larger service is to just such patients.

Not only are nurses whose training has been solely in hospital wards under the disadvantage of never having even seen many of the common forms of human helplessness; but they go out to private practice under the still more serious disadvantage of never having learned to take care of patients in their own homes surrounded by their families. This is the chief cause of the dissatisfaction, on the part of the medical profession and the laity, with modern nurses. When the patient is acutely sick, and especially when a serious surgical operation is necessary, then the modern nurse is recognized as a blessing. She is then in her own element, for success depends upon transforming the home into a hospital. But, when the successful treatment of the patient as well as the happiness of the patient's family, depends, as nine cases out of ten it does depend, upon keeping the home from being turned into a hospital, then the modern nurse is not so sure of being thought an angel. For it is one thing to be able to take excellent care of a dozen patients in a hospital ward, where all materials are at hand, and where no thought need be given to the domestic arrangements, and it is quite another thing to take good care of even a single patient in her own home, where no proper appliances are available and where the whole household machinery is upset.

Of course this very different kind of nursing can be afterwards learned by graduates of the hospital schools. As we all know many such become excel-

lent private nurses. But such ability is gained not where it should be gained, during the nurse's studentship, but in her subsequent practice where the nurse is paid maximum fees.

This serious educational disadvantage in the hospital schools is fast being recognized by all teachers of nursing, and many hospital schools are arranging for the instruction of their student nurses in district visiting nursing. What, then, prevents the general adoption of this improvement? Again the same answer: The hospitals cannot afford it, they cannot spare their student nurses.

Here we have the underlying disadvantage in the hospital ownership of its training school. In such subordination of educational ideals to utilitarian ends no real professional advance can be expected. Even in the manual training schools, where pupils are fitted only for trades, the product of the pupil's endeavors is of only secondary consequence. The pupil's education and training is the sole purpose of these schools. But in the hospital nursing schools, on the contrary, the usefulness to the hospital of the student nurse's work is the only consideration. Even her health is of minor consequence.

(3) Before considering the advantages of affiliation between nursing schools and hospitals we may well bring into view the kind of training school required by our present ideals of nursing. General agreement here can hardly be expected. For some of the growlers and grumblers against modern nurses say that nurses are already taught too much, while others say they are not taught enough. But

probably most critics will agree that the prime object of the nursing schools ought to be the education and training of student nurses for their subsequent service. And as only a small and a constantly decreasing proportion of them after their graduation find employment in hospitals, and by far the larger number engage in other service, it surely will be agreed that hospital nursing should be considered as only one department of the nurse's education and training. Two other equally important departments are private family nursing, and public service as visiting nurses, in district work and in school and tenement inspection. The ideal nursing school, therefore, should fit nurses for these three different services.

As regards the department of hospital nursing, little need be said. In that respect the training schools of the present day are most proficient. That is because the schools exist for the primary benefit of the hospitals, and because they are so entirely controlled by hospital trustees. Were the training schools controlled, as are all other schools, by educational boards whose primary purpose is the education of their students for their highest future usefulness, there can be no doubt that at least equal opportunity would be afforded in the training schools for education and training in the other departments of nursing.

For instance, proper preparation for private family nursing includes thorough education and practice in all branches of housekeeping. In wealthy households the nurse, it is true, may not need such

knowledge; but in the average family, and especially when the mother is the patient, a nurse who is not a proficient housekeeper is worse than useless.

And, again, in the departments of visiting nursing and school inspecting, where trained service is now in rapidly increasing demand, proper preparation requires special courses of instruction and full opportunity for practice under teachers who have mastered these specialties of nursing. Further instances need not be specified in support of our main contention that the ideal training school must prepare nurses for the kind of service the public demands. And is it not self-evident that such training schools can be inaugurated and maintained only under the management of educational boards?

Inasmuch as more than nine tenths of our nurses are women, it is certainly fitting that the majority of the educational boards in charge of training schools should be women. And so fast as possible these boards should include in their membership graduate nurses who have become permanent residents in the neighborhood.

In the case of many of the smaller hospitals their boards of managers fulfill these requirements and might naturally be thought perfectly competent to manage the training school as well as the hospital. If so, it still is important that there shall be two separate organizations, even of the same people, as managers of the two very different institutions—the hospital and the school.

But it is of far greater importance, than the composition of the board of trustees, that the direct

management of the nursing school shall be vested in a faculty of teachers. This requirement is a *sine qua non*. No real school can possibly be otherwise managed. Without schools so managed no profession can advance.

If this ideal of the nursing school be accepted, that it shall be managed by a faculty of teachers responsible only to a board of trustees, a majority of whom shall be women, then the advantage of an organization separate from that of the hospital becomes very plain, at least so far as the interests of the school are concerned. And our inquiry now should be directed to the effect upon the hospital of such a separation.

Those who believe in continuing the customary subordination of the school to the hospital are always urging the necessity of having one responsible chief, who as the superintendent of the hospital shall have absolute control of every person on the premises. That is all very well. No one will dispute that. But why should such a chief have any more control of the school that furnishes the nurses than he has over the school that furnishes the medical and surgical internes? The student nurses who are sent to the hospital for their training must, of course, while in such service be absolutely obedient to the hospital organization. Failure in this respect should in their case, as in the case of the internes, involve their instant dismissal from the hospital's service.

Moreover, it may well be provided that the matron of the hospital and her permanent assist-

ants should also be members of the faculty of the nursing school. This would inure to the benefit of both institutions.

One great advantage of having separate organizations for the school and the hospital comes in the relief that such separation gives to the hospital management. As a member of the faculty the hospital matron can well afford to give her advice and assistance to the school. In that faculty she is in charge of the department of hospital training. But she is relieved of the overwhelming responsibility, now resting upon most hospital matrons, of managing also the preparatory and all other departments of the training school. If it works well in the best private hospitals, instead of maintaining training schools of their own to employ only student nurses from other hospitals which have their schools, why should it not work equally well in all hospitals to employ only student nurses from independently organized schools? The answer is that wherever tried this kind of affiliation between school and hospital does work well for both organizations.

If the scheme be considered only from the financial view point, the arguments are wholly in its favor. There is no reason why hospitals, supported by charity whether public or private, should pay more for nursing than for medical service. The permanent officers of the hospital, both nursing and medical, must of course, be paid salaries; but the constantly shifting force, both of student nurses and of medical internes, if given good board and

lodging, are sufficiently paid in the opportunity thus afforded for acquiring practice in their professions. Were this principle more generally recognized, the hospitals would feel more free to maintain an adequate nursing force, and the student nurses would be emancipated from many of their inherited servile hardships.

Against the separation of school and hospital may be urged the impossibility of the nurse's serving two masters. Such objection entirely misses the mark. For it is the nurse's business first, last and all the time to serve her patients in absolute obedience to medical direction. This is also the business of the whole hospital organization of which the nurse is a part. The whole purpose of the nursing school is to fit her for this service. And, therefore, in perfect loyalty both to her school and to her hospital there can be no conflict. Her duty to the one involves her duty to the other.

SPECIAL TRAINING IN HOME NURSING

1922

"The greatest need of nursing service is now, always has been, and always will be, in the home of the patient."

SPECIAL TRAINING IN HOME NURSING

The modern profession of nursing and the modern science of avoiding and destroying disease-producing germs have been the two great factors in the wonderful advance of medical practice during the last half-century. Together they have changed hospitals from dreaded pest holes into popular life-saving institutions, which have increased many hundred-fold. Fifty years ago no patient who could possibly avoid doing so went to the hospital. Nowadays it is quite the fashion to be born or to die there, and for surgical operations as well as for medical treatment patients go to the hospital as a matter of course.

What is the effect upon nursing of this trend toward community hospitalization? In the first place, it is important to remember that the early schools of nursing were organized as educational institutions,—in more or less close connection with the hospitals, it is true, but still quite separate from them. The first and most famous, the Nightingale School at St. Thomas's, the Massachusetts General Hospital School and the Bellevue School in New York, were thus organized. Some smaller schools in this country also began independently of the hospitals, but, so far as I know, only the Waltham Training School still follows the Nightingale School in retaining its independence.

The hospital ownership of its training school, although so profitable to the hospital, is nevertheless in many ways a hindrance to the advance of

the nursing profession. No professional school can be thus subordinated without the sacrifice of its educational ideals. The labor of an apprentice learning a trade goes rightly to the profit of the master. But nursing is certainly not a trade, and yet it cannot be considered a profession while the product of the pupil nurses' labor goes to the support of an eleemosynary institution or into the pocket of the hospital's proprietor.

The student of a true profession must pay for her education either in cash or in work that is its equivalent, but such payment must go entirely to the support of the School. Formerly, all professional schools were thus supported, but such schools now depend more or less largely, and in proportion to their excellence, upon their endowments. Large grants are being made for this purpose, but as yet very little has been given to nursing schools. The reason is plain. Educational funds cannot properly be given except to educational institutions, and this is one of the hindrances to the advance of nursing that comes from the hospital ownership of the training schools; but there is another hindrance even more serious.

It is not for the hospital's interest to train its pupil nurses for any other service than that needed in the hospital, and until a scarcity of applicants forced them to arrange for wider training, by combining with other hospitals or with visiting nursing institutions, even the special hospitals contented themselves with giving diplomas. This was an injustice both to the nurses and to the public, for graduates

in nursing, as in medicine, are supposed to have had an all-round professional education, and not merely training for service in some specialty. Furthermore, between the hospital and the training school there is a conflict of interests; it is to the hospital's advantage to keep the pupil nurse in the work she has already learned to do well, while for the pupil's own sake her service should be changed as fast as she acquires proficiency. Were this educational principle followed, the usual course of hospital training might easily be shortened.

In the hospital ownership of the training school the most serious detriment is that the nurses during their pupilage are not trained for the kind of service most of them afterwards have to undertake, which is the nursing care of patients in their own homes. Although only hospital training can fit a nurse for hospital service, and although the fundamental principles of nursing can be taught in the wards, it is nevertheless true that hospital training alone does not and cannot fit a nurse for equally excellent home nursing service; and the great reason for the prevailing distaste of graduate nurses for private nursing is that most of them have not been adequately educated for it. Every nurse likes best to do what she can do best. If, for instance, she has proven her efficiency as an operating-room assistant, naturally she prefers such service to that of nursing a patient in his own home, unless, indeed, in the rare instances where the home has to be transformed into a temporary hospital for some surgical operation.

Probably few graduate nurses recognize their lack of special training in home nursing as the real reason of their distaste for it, and, in fact, there are other good reasons. For instance, private nurses are often employed by rich families where only lady's maid service is needed; too many hours of service are often expected; too little time is allowed for the nurse's recreation and sleep. Sometimes the food given is insufficient. Other members of the patient's family are not always agreeable associates, but all these reasons, and others like them, for the prevailing dislike of graduate nurses for home nursing, are only subordinate. The real reason is, as has been stated, that more than hospital training is necessary to fit a nurse for perfect service in her patient's home, and very few nurses have had this extra training. If they have acquired proficiency as private nurses, it has been only in the hard school of experience, and at great cost both to themselves and to the families served.

What, then, it will be asked, is this necessary special training for home nursing? Obviously, only an outline of it, and the general principles involved, can be given within present limits.

There is no need of dwelling upon the necesssity of getting along with only scanty or makeshift material, for the nurse's mother wit and common sense will triumph over such exigencies. Of far more importance than this usual shortage of proper material is the necessity of a self-dependence that cannot be acquired in hospital service where head nurses and house officers can be summoned to decide

doubtful questions. Perhaps, out of the dim recesses of her memory the nurse alone must recall, if not the precise procedure, at least the general principle upon which her proper procedure depends. Fortunate for her if this first lesson in self-dependence comes while still a pupil nurse, before she is expected to know everything, and when from her instructor's next visit she may receive competent endorsement or criticism of what she has done.

Training in the hospital teaches the nurse, besides her duties to her patients, her proper relation to the doctors, to her superiors, to her classmates, and to her juniors; but all she there learns of her proper relation to her patients' anxious families is how to shoo them out when visiting hours are over. In home nursing the sooner that particular lesson is unlearned the better, for success there depends upon utilizing for her patient's sake every anxious relative, all the friendly neighbors, and especially the servants. This requires an immense amount of tact. Some fortunate individuals are naturally tactful; some are not. But tact is acquirable; it is merely the effective expression of kindness.

Management of the family for the patient's advantage can be learned far more easily among those of moderate means than in wealthy homes. In this respect the pupil nurses, who generally are employed where high-priced graduate nurses could not be afforded, have a distinct advantage. Before graduation, before she is expected to know everything, it is far easier for the nurse to begin home nursing on a proper footing,—as the helper rather than as the

superintendent of the family. Often the private nurse's greatest chance of helping, certainly at first, is in just standing ready and not in immediately supplanting the anxious amateurs who, of course, hate to surrender the care of their loved one.

"They also serve who only stand and wait."

Even if the nurse does know far better than the wife or mother how to take care *of* the patient, she does not care *for* him as they do, and for that very reason their clumsiness carries more comfort than her skill. The rough hands of the laborer may feel far tenderer to his suffering wife or child than the softest hands of the stranger nurse. Therefore, the nurse who has been trained only in the wards, and who considers herself in the same supreme charge of her private patient from the moment she enters his home, often fails not only to do what is best for the patient, but also often hurts the feelings of his family. Between assuming all the nursing service and undertaking that part of it which the family perhaps only gradually can be convinced they cannot so well perform, there is a vast difference; and the recognition of this essential difference,—between excellent and unacceptable service in home nursing, —is a hard lesson for fully trained nurses to learn. It is far easier learned by pupil nurses, and that is the great reason why pupil nurses' service is often preferred by families who do not even think of the greater expense of graduate nurse service.

In the wards the patient is considered only as an individual. In his home he is far more than that.

The whole family is the real unit, and unless the home is made into a hospital, it is not possible for the nurse to give all her attention to the patient while ignoring the other members of the family. Sometimes it is necessary to make this transformation; but, if not necessary, such procedure is rightly resented by the family, if not also by the patient. Why, then, should he not have gone to a hospital? What comfort or advantage has he in staying at home?

Home nursing thus demands of the nurse not the service she has been trained to render, but an entirely different service. She knows how to establish hospital *régime*, but that is just what she must not do. Instead, she must rescue the imperilled home. And it is unfair to her, and to the public, to send her out to such service without sufficient preliminary training.

In the wards nurses very properly are conspicuous in the foreground. In the patient's home the more inconspicuous they are the better. The highest praise of the home nurse is that, except for the smoother running of the household, one would never know there was a nurse around. And yet, while never being in the way, the home nurse must be always on the job, always alert to ensure that every possible thing is being done for her patient's comfort and recovery.

Services that can be performed by other members of the family, or that they can be taught to render, should be considered theirs by right. Therein lies their greatest comfort. This is especially true at

the last, when the patient cannot recover, and when even the highest skill is of no avail.

This faculty of self-effacement and of using others' anxious hands in the care of her patient can neither be taught nor acquired in the hospital. In the home, and only in the home, it can be, and the question is,—when?

The foundation principle of a nurse's education and training is that, before she is given any particular service, she shall be taught how to perform it, and so far as possible the reasons for doing it in that way. And her practice is then to be supervised until her work can be depended upon. The same principle should be followed in training a nurse for home nursing. This training can best be given during, not after, her pupilage, when she is teachable, and when practice can be supervised by her teachers.

This method of preparing student nurses for home nursing has been employed in the Waltham School now for more than thirty-seven years, but it was not invented here. Sixteen years earlier in Lausanne, the School of La Source was founded upon the same principle which is still maintained there. In 1895 our Training School had the benefit of Florence Nightingale's criticism and advice. Her subsequent letter to our nurses in its frame hangs there on the wall. She deplored, even then, the prevailing trend towards the over-hospitalization of nursing to the neglect of home nursing. And she strongly advised us to take for our model the Metropolitan and National Nursing School. The special characteristic

of that school, which was chosen as the model for the training of the Queen's Jubilee Nurses, was in the preliminary training of its pupils in home nursing before they were sent to the hospitals for further training. Only such as made good in this preliminary course were retained. After one year in the hospitals they came back to the school for further training in home nursing.

For now a full half-century I have been especially interested in nursing. I still consider it the most important adjunct to my own profession. As a boy I sometimes served as the night watcher of my sick school fellows. I knew Dr. Susan Dimmock, and some of her trials in establishing the first training school in this country. I have studied many of the famous schools here and abroad, and without further apology I offer these as my

CONCLUSIONS

1. The greatest need of nursing service is now, always has been, and always will be, in the home of the patient.

2. For home nursing, special training is necessary.

3. This special training can be given only in the home.

4. And it can best be given during the nurse's pupilage.

5. It is unfair, both to the public and to the pupil nurses, for a training school not to include this special training in its curriculum.